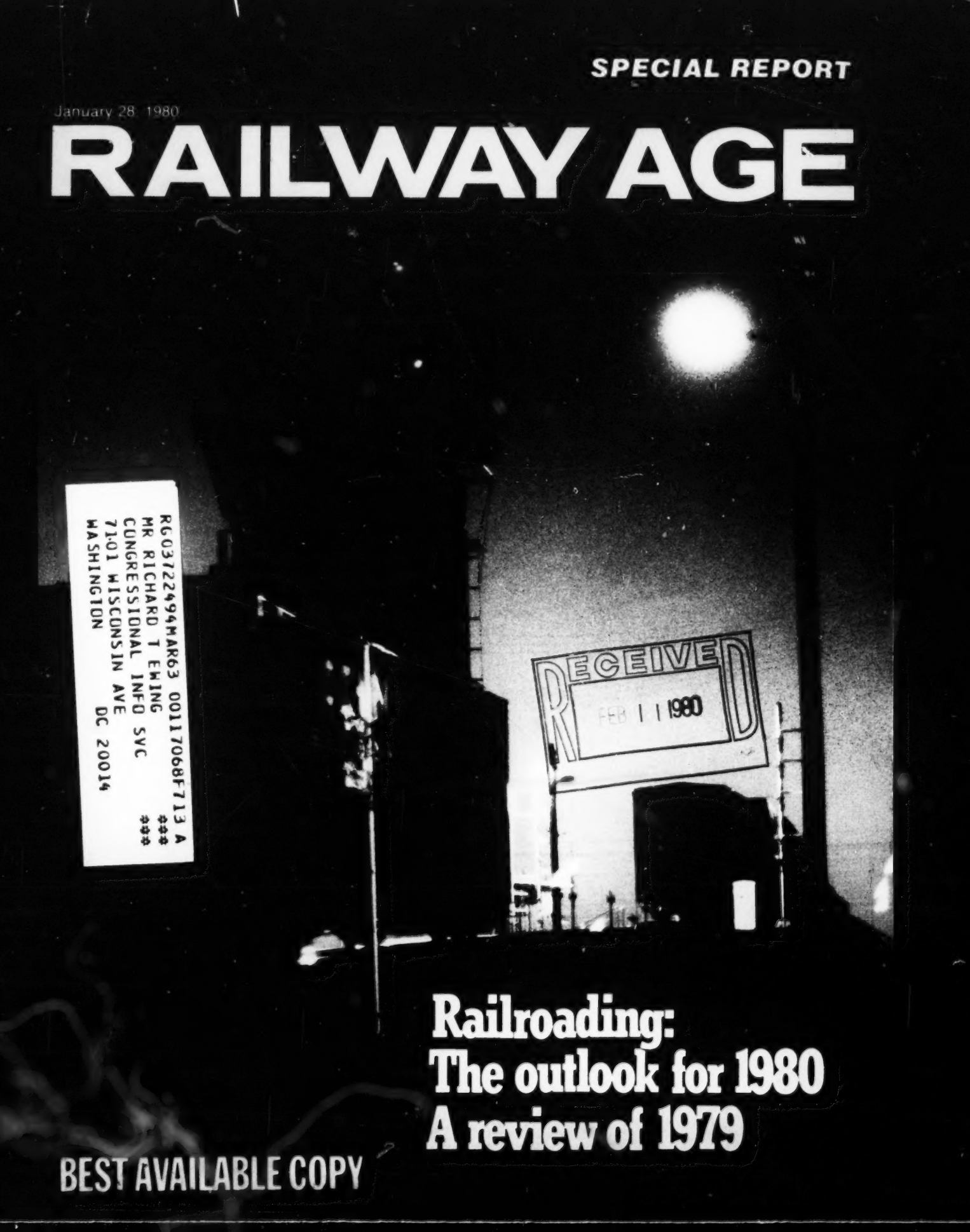
SPECIAL REPORT

January 28 1980

RAILWAY AGE



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Inside

LUTHER S. MILLER

THE AFGHANISTAN FACTOR

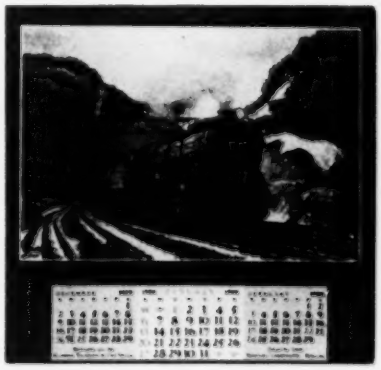
Afghanistan for many years has been the only major country in the world without a railroad—a deprivation that has made it easy for us, the nature of our business being what it is, to ignore this Texas-sized land of shepherds, carpet weavers and truck drivers. But no longer. Since Christmas day, 1979, when the first Soviet troops moved across the Afghan frontier, it has been necessary to add "the Afghanistan factor" to that long list of imponderables that will determine the immediate future of railroading in the U.S. This is because President Carter has embargoed all grain shipments to the Soviet Union not covered by our trade pact with that country, a move that could cost the railroads a chunk of export traffic and could affect orders for covered hoppers. Resumption of the cold war has also cut off the exchange of technology between U.S. and Soviet railways when it was just starting to get up a head of steam. The implications for railroads of this shift in foreign policy are discussed by Associate Editor Tom Kizzia in Watching Washington (p. 14).

The Afghanistan factor notwithstanding, *Railway Age*—in this Annual Review & Outlook issue—sees for both railroads and railroad suppliers another year of relative prosperity, though 1980 may not measure up to 1979 in all ways. A slight traffic decline is expected in the first half, and costs that often rise faster than rates will continue to put pressure on earnings. "But it is still going to be a very good year compared with any other recent year except 1979," AAR President William H. Dempsey recently observed in an interview with *Railway Age*. The long-range optimism of the railroads and of private investors in railroad equipment is underscored by forecasts that in 1980 the carbuilders will deliver an estimated 85,000 freight cars and the locomotive manufacturers around 1,900 diesel-electric units.

Our 1980 outlook articles start on p. 30. The 1979 review section starts on p. 56; this year it includes an expanded statistical section that charts the course of railroading in the '70s.

A NEW PENNSYLVANIA RAILROAD CALENDAR

As a commercial artist with the Osborne Calendar Co. of Clifton, N.J., Grif Teller painted the pictures for 27 of the 34 calendars that the Pennsylvania Railroad distributed between 1925 and 1958. The Pennsy is long since dead, but Grif Teller lives and has lost none of his flair for capturing the spirit of railroading on canvas, as Ken Murry discovered when he persuaded Teller, who turned 80 last Dec. 9, to paint one more Pennsylvania Railroad calendar. Murry, an industrial photographer for Armstrong Cork who is a railroad historian on the side, has now published a 1980 calendar with the new painting, showing a K4 steamer pulling a passenger train around Horseshoe Curve.



Of the dozen or so calendars that have come to our desk in recent weeks, this is the one that has gone up on the wall. You can buy it from hobby shops or by writing to Grif Teller Calendar, P.O. Box 1980, Mountville, Pa. 17554.

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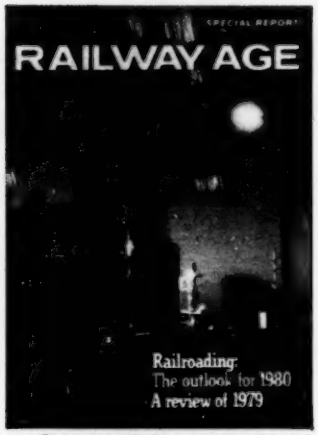

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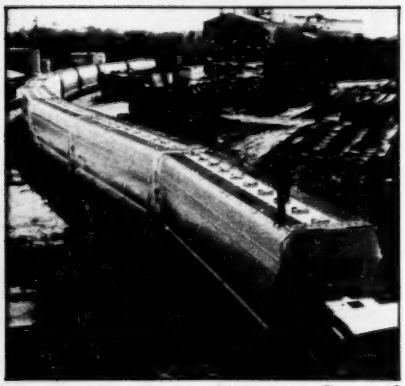

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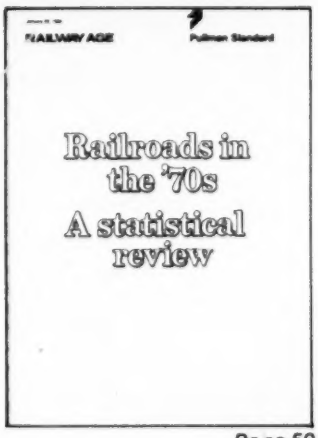

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COVER: Southern's minicomputer-controlled yard at Sheffield, Ala., was photographed by Southern System Photographer Howard Olmsted.

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Coal traffic will be relatively strong in '80, but production has not been increasing as rapidly as earlier forecasts indicated.

Traffic down, spending up

By GUS WELTY, Senior Editor

If railroads were athletes running windsprints, their recent performance and their long-range outlook could be summed up simply: Go flat-out. . .pause. . .go flat-out once again.

In 1978 and '79, railroads were indeed going flat-out. Each year saw record highs in revenue ton-miles, along with increases in carloadings. TOFC/COFC volume set a record in '78 and another in '79. Last year, thanks to increases in both traffic and rates, there was even a significant improvement in the industry's financial performance.

Now, after a two-year sprint, comes time for a pause—though not one dictated, in this case, by an inability on the industry's part to continue going flat-out.

When does the next sprint start? Some guess late-1980. Some guess 1981. But few doubt that it *will* start.

● **The view from now.** At this point, these are the prospects for 1980 and beyond:

—Rail freight traffic will be down at least for the first half of 1980, with current estimates running 4.5% to 5%. With the automobile industry in a slump, with housebuilding rates sagging, with foreign policy and international events playing hob with grain exports, and with coal production not increasing as rapidly as expected, the decline could be even steeper.

—Despite the pause in traffic development, railroads are still forecasting increases in 1980 in spending for improvements as well as for maintaining equipment and plant already in place. A *Railway Age* survey of major roads shows planned increases in capital expenditures that may approach 15%, a figure only slightly higher than the one arrived at in a U.S. Department of Commerce projection released earlier in January.

—For the railway supply industry, these numbers should produce another high-volume year, with deliveries of both freight cars and locomotives approaching the peak levels of 1979. For '79, the totals for installation of new and rebuilt equipment approximated 90,000 freight cars and 1,900 locomotive units, with nonrailroad purchasers accounting for about two-thirds of the freight car acquisitions. Carbuilders expect some decline in deliveries in 1980, but the *RA* survey seems to indicate that if there is to be a drop, it will come in that sizable nonrailroad sector and not from the railroads themselves.

—Again in 1980, the railroad industry should benefit from relatively quiet times in management-labor relations. This is the third year of a three-year (actually 39-month) agreement that was made effective Jan. 1, 1978, and negotiations on a new contract are not scheduled to begin until 1981.

—On the other hand, "quiet times" may hardly be an appropriate phrase to apply to railroad-government relations, although with everything else that will be going on in Washington it remains to be seen how interested the Administration and the Congress will be in railroad matters. At this point, the Administration still seems committed to some form of railroad deregulation; the Senate seems likely to resume the efforts that produced committee approval of a deregulation bill late last year; and the House seems ready to start moving on legislation that could approach the industry on an even broader basis. As an industry, railroads found it possible to support the Senate bill, but their enthusiasm was not overwhelming. Serious concern remains that Congress will yield to utility and consumer pressure by putting tight restrictions on ratemaking for coal traffic, and, in broader terms, there appears to be a feeling that what started out as an effort to provide the industry with greater freedom and flexibility in many areas—the whole deregulation process—may turn out to be something else again. Thus, in some quarters, questions are being raised as to whether the industry's legislative thrust should again be concentrated on matters involving competitive equality with other modes of transportation.

—Finally, in the broadest sense, both the near- and the long-term future (and, certainly, not just of the railroad industry) will depend upon government's controlling events rather than being controlled by them. On this score, even dyed-in-the-wool optimists find little to cheer about. The economy, for example, shows signs of doing again what traditional economists thought it could never do for the first time—repeating 1974-75, with high inflation and deep recession running concurrently. The international scene, meanwhile, is in turmoil; some observers see a return to the dimly re-

Restructuring: Power plays in the West

The Rand, McNally map of the U.S. railroad system, circa 1980, may turn out to be a collector's item by 1990, if not before. Change—significant change—finally is coming.

Historians, sometime off in the future, may not agree on what triggered the current wave of proposed consolidations, just as observers today can't agree as to whether what's happening is what ought to be happening. But off in the future when historians get together, the word "Tucumcari" may well lead off their discussions.

Thus far in the second half of the 20th century, restructuring of railroads in the West has lagged. Burlington Northern was created through merger in 1970, but elsewhere Union Pacific didn't take Rock Island; nobody got Western Pacific, though Santa Fe and Southern Pacific tried; and not much else happened, either.

Then came Tucumcari—the name for the Rock Island line between an SP connection in New Mexico and Kansas City-St. Louis: SP coveted it, made bankrupt Rock Island an offer, and the line seemed increasingly likely to wind up in SP's hands.

Meantime, the proposal to merge Burlington Northern with Frisco also came along, but it didn't seem to carry the same import for railroad competition in the West. Tucumcari, on the other hand, had import—impact—as some saw it.

● **A big one, followed by...** Then along came Union Pacific-Missouri Pacific—and the likelihood that if Tucumcari wouldn't forever change the shape of things in the West, UP-MP would.

There was action, too, in the eastern one-third of the nation as the 1970s ended: Grand Trunk Western had won ICC approval for expansion, and Seaboard Coast Line Industries (after rebuffing Southern Pacific) had gone before the ICC along with Chessie System with a consolidation proposal. Still, the West was the attention-getter. GTW, after all, was mainly looking to a regional growth, and observers wondered if Seaboard-Chessie would ever come off, especially in view of the demands Southern and Norfolk & Western were making before the commission. What was happening in the West involved "major powers" and had more far-reaching implications.

To an extent, bankruptcy—until the mid-'70s something confined to the East—was having its effects in the West, in terms of the proposed reorganizations of Milwaukee Road and Rock Island, reorganizations that would likely cut each down in size as other roads picked up some pieces and other pieces were torn up. Except for the Tucumcari effect, though, the bankruptcies were likely, mainly, to have a *mid*western effect, one concentrated in farm-belt territory. Tucumcari and UP-MP were different—and they raised a host of questions.

What the Tucumcari line would give SP was a competitive route between the West Coast and Kansas City-St Louis, an entry into Kansas City, and a route into St. Louis about 400 miles shorter than the SP-Cotton Belt line. What UP-MP would provide was access to the Gulf Coast for UP (which was to be the acquirer) plus entry to such points as Chicago, Memphis, New Orleans, and St. Louis—the last perhaps the most important, at least to those who see St. Louis becoming the greatest of all midcontinent gateways in the future.

Observers were asking a lot of questions: With SP into Kansas City and into St. Louis on a better route, and with UP going to the Gulf as well as to gateways farther east than Omaha and Kansas City, where would that leave Santa Fe? If UP suddenly acquired capability for single-line service into St. Louis and Chicago, what about Chicago & North Western (which had gone from being a competitor of UP in the old Rock Island merger case to being UP's biggest connection on traffic to and from Chicago)? What about Denver & Rio Grande Western? What about the north-south lines, Kansas City Southern, Illinois Central Gulf, Katy?

To go further, what about railroad-government relationships? If, as seemed possible, C&NW could suffer from a UP-MP combination, what about FRA's heavy assistance "investment" in North Western, funds that have largely been spent in turning C&NW's line between Chicago and its major UP interchange into a first class piece of railroad? What about government's sometimes-expressed desire that, in any western restructuring, the "have" roads should find a place for the "have-nots"?

● **A great silence.** At the outset, following the UP-MP announcement, neither other railroads nor government officials had much to say for the record (not surprising, perhaps, since UP-MP came to light only after the parties had reached an agreement and not at the time their studies began). But it seemed clear that other roads' options were dwindling in number, with Frisco and MoPac spoken for; as for government, it had to be searching for its hole card.

Speculation—and it was only that—had to do with a number of things. One, concerning the Far West, was that Santa Fe or Santa Fe and SP together in some way would wind up with Rio Grande.

Another was that it might be time for somebody to break the midcontinent barrier (as SP had tried to do in its approach to Seaboard), and there was conjecture as to whether the remaining nonaligned western major would sometime be talking with Norfolk & Western (which reaches Chicago, Kansas City, and St. Louis).

UP-MP combination would give UP access to the Gulf Coast, plus entry to such cities as Chicago, Memphis, and St. Louis.

As for government, it has reason to be concerned about the future of marginal and close to marginal roads, especially those it has aided. But realistically, government also has to know that healthy roads are going to prefer merger with healthy partners. At least one proposed merger, so it's said, never came to anything in good part because of the out-of-line labor costs of the lesser of the two potential partners and because of a government approach that said, in effect, that the greater of the two would have to go along with the handicaps of the lesser.

The Interstate Commerce Commission, of course, will have the final say on what happens (ICC and, probably, the court system in some cases). It might be worth noting, in connection with merger as well as with other railroad-related matters, that today's commission is a different one—one that has given at least a preliminary indication that it may be less concerned with protection and more concerned with helping to form a more competitive industry that can provide better service at lower cost. That approach—followed through and upheld if challenged—could have implications both for railroads that are not initially a part of major change proposals and for labor organizations that demand (as in the case of Conrail) not only protection until retirement for adversely affected employees but also adoption of most-restrictive provisions of existing contracts in cases where one road acquires all or pieces of another.

Washington: "The albatross of competitive inequity..."

Outside of the broad and murky area of deregulation, what is the single most vexing problem facing the railroads as they roll into the '80s? *Railway Age* put the question to William H. Dempsey, president and chief executive officer of the Association of American Railroads, and Richard E. Briggs, the AAR's executive vice president.

Said Dempsey: "The biggest single albatross that we have hung around our neck is that of competitive inequity. The way in which both state and federal governments have developed transportation policy confers artificial and very significant advantages on our competitors. If I had to pick out one thing that we could

W.H. Dempsey, President, AAR

correct in 1980—if I could take care of only one problem—resolving the problem of competitive equity would satisfy me for the next 10 years."

Is some progress being made?

"Yes. I think the public is becoming acutely aware of what the heavy trucks are doing to the highway system. All you have to do is drive along a highway and watch the heavy trucks rumble by," said Dempsey.

"There's a lot of talk about deferred maintenance on the railroads—but when you look at the deferred maintenance on the highway system and the state bridge system, it's astronomical. Our state highway departments and state governments are beginning to be deeply concerned.

"Then there's the matter of the grossly negligent enforcement of laws. Incredible statistics have come to light in just the last year about the percentage of trucks that are discovered in spot inspections to have serious safety flaws, and the large number of trucks that are overweight."

What would the AAR like to see done to correct the situation?

"First, there are the enormous subsidies that are going to both the highway and the barge carriers, and that has got to be rectified. The precise mechanism for rectifying it, in terms of user taxes and gasoline taxes, must be carefully worked out. It's all very complex, and if you aren't careful you can make some terrible mistakes. You can extract money out of the highway users, but by virtue of the formula you use, whether it's a tax on fuel or whatever, you can wind up imposing the greater share of that burden on the light trucks and the passenger cars.

"As for enforcement, the issues are different in each state; again, it's a complex problem. But we *do* have an extraordinary network of railroad safety regulations and they *are* intensively enforced. Certainly the laws and regulations applying to our competitors ought to be enforced no less vigorously."

Briggs agrees that "we're coming closer to dealing with the equity problems."

"Any good answer with respect to user charges is going to have to be phased in, and it's a long way down the road," says Briggs. "The encouraging thing is that the states *are* being forced to face the problem of user charges. They are seeing a drastic increase in maintenance costs. They are seeing rampant inflation, which means that the maintenance for which they are responsible is going to take many more dollars. Gasoline consumption per mile of travel (and per mile of damage) is going down, because of more fuel-efficient engines; at the same time, usage is not increasing as anticipated. The result is extremely harsh upward pressures on costs and downward pressures on receipts."

As for deregulation of railroads at the federal level, both Dempsey and Briggs are less optimistic today than they were a year ago that substantive relief is going to come quickly. Dempsey points out that what began as a well-defined and straightforward drive to relieve the railroads of some of their regulatory burdens has now taken some strange bypaths that sometimes lose sight of the original goal. Late in 1979, for example, there was an effort to inject a coal-rate-ceiling provision into a Senate Commerce Committee "consensus" deregulation bill—a bill that was already, as far as the railroads were concerned, close to the borderline of unacceptability. Recently there has been talk in the House Commerce Committee of an omnibus bill. Dempsey fears that such an approach could load so much additional freight onto a deregulation bill that the measure might sink.

Briggs points out that while the legislative road to regulatory reform has so far led to nowhere, help *has* come from the regulators themselves. "Perhaps the most unexpected development last year," says Briggs, "was the depth and breadth of ICC actions in reducing regulation. ICC Chairman Dan O'Neal said months ago that he would move in this direction, but very few people felt the commission would go as far and as fast as it in fact did.

"So while we ran into problems achieving our goals by legislation, the commission has covered at least part of the space between where we were and where we ought to be. Hopefully, that will continue."

Dempsey emphasizes that what the railroads want is the opportunity to let

R.E. Briggs, Executive Vice President, AAR

the marketplace—and not artificial constraints—determine the future course of common-carrier freight transportation:

"I think one of the most notable aspects of our deregulation program is that we didn't ask for any money.

"The appropriate public policy is the one that is supposed to be reflected in the 4R Act—namely, that the national transportation policy ought to be fashioned in such a way that goods are transported in what is inherently the most efficient way, and the government ought not to interfere with the marketplace except in extraordinary circumstances. In the Northeast the government couldn't let the rail system collapse in a pile of junk. But we are certainly opposed to any long-range solution in the Northeast that would involve pouring huge sums of additional money into that system. We have taken the same position with respect to the Milwaukee and Rock Island. We think that what's good enough for the railroad system, in terms of letting the marketplace work, ought to be good enough for our competitors."

membered days of Cold War tensions; others simply wonder if a shredded foreign policy can be patched back together. Overlaying or underlying all of this, of course, is the fact that 1980 is an election year, with all that this usually means for those in power: To put it bluntly, a *little* international tension seldom hurts, if the incumbents seem to be able to cope with it—but a rending of the domestic economy can be politically disastrous, especially with memories of 1974-75 so fresh.

● **The ICC factor.** All this leaves one major aspect of the outlook to be considered, and that is the Interstate Commerce Commission, the agency that (with the possible exception of the Federal Railroad Administration) has the most day-in, day-out impact upon the industry, and the single agency with direct make-or-break power over it.

In 1980, ICC *could* be a more positive force than it has been for years, for a couple of reasons. First, this is a relatively young commission in terms of its members' length of service, and it has already demonstrated a willingness to rethink old problems. Second, the whole debate over deregulation, coupled with continuing criticism of ICC's handling of 4R Act regulatory reform, may have had a salubrious effect in nudging the commission as a whole in the direction of a more liberal appoach.

Specifics can be cited, starting a while back, when the ICC decided that its old position on contract rates was in fact wrong and that railroads and customers could indeed enter into such agreements. Then, the commission in effect deregulated rail transportation of perishables, thus allowing railroads to compete with truckers in a market where the rail share, under past competitive restrictions, had dropped to less than 10%; perhaps the results—a sharp increase in rail handling of perishables, especially in piggyback service—gave encouragement, because ICC next began looking at a broad deregulation of TOFC/COFC itself as a means of promoting greater use of this flexible, fuel-efficient type of intermodal operation.

Since the 4R Act set time limits for the handling of rail consolidation proceedings, perhaps the commission doesn't deserve a whole lot of credit directly for the way it has kept several such cases moving. But ICC can be given credit for action in several other areas with even broader impact on the industry. One example: the commission's decision to take another look at its role in laying down and enforcing car service rules. Another example: ICC's willingness to consider whether, a decade or so ago, it made a bad move when it laid incentives on top of basic car hire rates.

● **Under fire, no fall-back.** In each case, there may have been more than pure altruism at work. The commission had been under fire for creating far more problems than it solved in the car service area, and its continuation of incentive per diem was clearly creating a bad financial situation for the railroads even as it was (and had been) failing to accomplish its intended purpose. Nevertheless, in olden days railroads might have expected little more than a perfunctory hearing from a commission that would decline to admit it could err—while this time around, the ICC seems serious in its attempt to resolve serious issues.

As for the Department of Transportation and, specifically, the Federal Railroad Adminitration, positive and negative factors may be a little less obvious. Cooperative programs dealing with technological matters on the whole get decent marks; those programs involving financial assistance can in some respects be questioned.

Similar question marks dot FRA's approach to safety, especially in the area of safety standards. On the one hand, for example, newly formulated freight car standards seem to recognize that inspection requirements under the old standards were somewhat out of touch with the real world in terms of what is really needed to maintain a safe operation. On the other hand, FRA's new intentions regarding track safety standards appear to be a move in the opposite direction, away from real-world consideration, especially as concerns permissable train speeds and the close linkage between speed and weight of rail in track. FRA, in short, remains something of an enigma—an assessment that at least some within the agency would not deny.

● **The energy squeeze.** When you look at government policy and its impact upon railroads and all transportation, however, all else pales when it's put alongside energy policy. Two aspects of that policy (perceived policy, as it were) seem to loom largest. One has to do with conservation of scarce resources, the other with use of available resources.

Just about every move by the Organization of Petroleum Exporting Countries seems to point to higher and higher prices coupled with the kinds of limits on production that will sustain those prices. Railroads and motor carriers are probably the largest users of diesel fuel, among freight haulers. Railroads, probably, make far more efficient use of fuel. Yet, with just an exception or two—one being the ICC's look at deregulation of TOFC/COFC operations—government appears to have taken no cognizance of the efficiency factors. Railroads last year found themselves for a time on the short end of fuel allocations; even after allocation changes were made, railroads found themselves short-ended on pass-through of fuel cost increases, with motor carriers allegedly getting a better deal with less bureaucratic delay.

For their part, railroads were trying to conserve, cutting down on waste and making closer matches between power and tonnage (sometimes at some cost in service). But government seemed blind to railroad efficiency, reluctant to do much to steer traffic to the most fuel efficient mode—and it's not clear what the future holds. One forecast is that gasoline prices may hit $2 per gallon by the end of the year, with concomitant increases in the price of diesel fuel, which should make it even more desirable that traffic—freight and passenger—move via the most efficient way. Still, government's response is less than encouraging.

By virtually every estimate, there is enough coal in the ground, while policymakers go blue-skying in the direction of technologies (among them synthetic fuels and solar power) that can't be either economically attractive or productively adequate for many, many years (if ever, some would add).

Meantime, railroads—in the West in particular—have invested tens of millions of dollars in track, motive power, freight cars, signaling, and so forth, on the premise that the coal would begin to move in the volumes anticipated and on the schedules predicted. It hasn't. Nor have coal-fired utility plants come on stream as forecast, nor has there been an effective push from government for conversion of oil- or gas-fired industrial plants to coal. One result has been that analysts have become bearish on coal stocks, looking at coal as a surplus commodity for the next three to five years and questioning the wisdom of the railroad investments.

The end result has been that awaited growth is still awaited, at least in the proportions contemplated in original Administration planning for coal's growth. Rates play a part in the overall equation, of course, and more and more attention is being paid to the delivered price of the coal that's to be mined. But, more and more, rail rates—a contributor to that delivered price—are coming to be better-known factors, while the price of oil and the price of gas remain unknown or less well-known, and the price of new technology remains completely unknown.

It's not likely that a comprehensive energy policy will come through in 1980, let alone a comprehensive economic policy. Presidential election years tend to be like that, in terms of policy development—and this time around there is the chance that an incumbent President could even

Labor: All's quiet—at least until '81

This year, 1980, is the last full year of a 39-month management-labor agreement covering most of the railroad industry. Therefore, 1980 ought to be a year much like most of 1979—a year of peace. It probably will be—except, perhaps, that this will also be the year in which both rail management and the rail labor organizations decide what they will go for in 1981, in negotiations that can begin soon after the serving of contract-change notices, about next Jan. 1.

Under the existing agreement, employees have not fared badly, despite inflation: Average annual earnings per employee rose in 1979 to an estimated $22,600, as the industry's total payroll climbed to more than $11 billion; by the end of the 39 months early in 1981, employees will have received four increases in basic wage rates (including a 5% increase coming due next July 1) and seven cost-of-living adjustments, all of this making up a package that was estimated to result in an overall percentage increase in the mid-to-high-30s.

What comes next? With inflation still running unchecked, it would be naive to expect that the organizations will settle for anything less than make-whole-protection-plus, and the initial demands are certain to be for a lot more. The last time around, labor came in demanding 15% per year. At the same time, labor can also be expected to develop new demands for improving an already handsome package of fringe benefits.

● **Recession—and rules.** If, somehow, inflation could be brought under control, those demands and the size of the eventual settlement might be reduced somewhat, but that's a big "if" as well as a big "might." At the same time, however, a recession-plagued 1980 could stiffen the industry's back—perhaps even the government's—and make tough negotiations even tougher.

As almost always, there is the matter of work rules, especially those rules involving the operating crafts. Railroads went into bargaining in 1977 expressing determination to win concessions on rules, but labor dug in, the determination faded, and the only major changes since then are changes that have been made on individual roads.

At this point, it's difficult to say how hard the industry may push for change the next time around. Those who are most optimistic about the industry's ability to rebound from recession point out that work rules are less of a problem in an expanding industry. Those who despair of the industry's ability to ever win change at the industry level see locally negotiated change as the main (if not only) hope. Even the most hopeful of observers see change, however negotiated, as being a long, slow, and painful process, with dividends long in coming.

Labor itself could, however, change the outlook if a couple of things (neither perhaps probable, but either possible) were to come to pass. One such possibility is that new leadership at the United Transportation Union will take a more realistic look at the rules and their impact upon rail operations and service, and decide that change can be made to happen (with, of course, appropriate protection for present employees). A second outside possibility, as some see it, is that the non-operating organizations may come to the realization that they, along with the railroads, are paying for the ops' refusal to change. According to this theory, once the non-ops realize that money saved on the operating-transportation side would likely be plowed back into stepped-up equipment and track maintenance and rehabilitation—with resulting employment increases in the non-op area—then the non-ops might persuade themselves to bring pressure to bear.

● **As for "new" systems...** While management and labor use 1980 as a launch pad for '81, 1980 may itself become a significant year in terms of the labor aspects of railroad restructuring. The situation is this: During '80, both western bankrupts may make long strides toward the kind of reorganization that will involve substantial cutbacks from the size of the systems they now operate. When this happens, some non-core lines will be acquired by other roads, but some will simply be abandoned. Either way, employment requirements will drop.

While rail labor may demand Conrail-type protection for affected employees, it has become clear that the Conrail solution is no solution—as a recent report by the comptroller general's office makes abundantly clear. Among the report's findings: The $250-million protective fund authorized under the Regional Rail Reorganization Act is gone, but the law requires that payments to adversely affected employees continue, and estimates of the eventual cost run from $884 million to $1.7 billion (though the General Accounting Office says it lacks confidence in these estimates and calls for new ones to be made). One big factor in the overrun: While other federally funded protection plans limit protection to six years, the 3R Act gives eligible employees protection to age 65. GAO, not surprisingly, recommends that the law be changed—and that recommendation is one thing rail labor may be up against when future restructurings take place.

be denied renomination by his party (which would leave a lame duck Administration in power, with lessened power in its dealings with Congress, from summer until next January).

● **Railroads: Steady ahead.** What railroads seem to be planning for 1980, however, is a steady slogging ahead. No spectacular breakthroughs, perhaps, but the kind of approach made famous when Grant took Richmond—which is to say, do the job, apply the pressure, wear the opposition down, take heavy casualties but win.

This leaves the industry with a forecast that traffic for the year will be down—though, in ton-mile terms, traffic should still be at levels that will make 1980 the second or third or fourth "best" year on record. It also leaves the industry with a forecast that railroads will be doing a lot more than many other industries in terms of self-improvement: If railroads cut back on capital-spending plans to any significant extent, it will be because the bottom has absolutely dropped out of the economy, and that is something not likely to happen.

In some ways, '80 may be a year of transition, for the nation in general and the transportation industry in particular—so the real questions may concern what happens in 1981, after the elections, after the impact of recent OPEC actions is felt, and after (for railroads, specifically) new labor agreements are negotiated.

As it happened, '80 started strongly so far as rail traffic is concerned, more strongly than might have been expected. As it happened, too, every time the economists announce that recession is here, some agency releases figures that deny it. Based upon announced plans for both capital and maintenance spending this year, there are few indications that railroads are pulling back at all, let alone in a major way.

For a number of years, railroads have been among the nation's leaders in terms of spending for improvement (as reflected in part by the consistent excess of capital expenditures over retained funds). At this time next year, the betting is that the same showing will have been made in 1980.

Outlook for 1980

Freight cars: A fat backlog insures another good year

If a market can be both stable and volatile at the same time, then the railroad freight car market is just that.

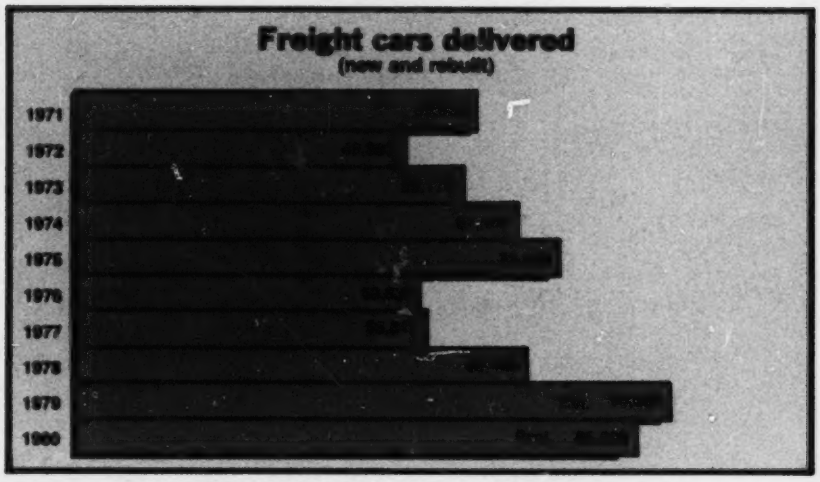
It's stable in the sense that backlogs have remained high, even in the face of high levels of deliveries. Today, the backlog of cars on order and undelivered still stands at about 15 months' production, even with old and new carbuilders and assemblers working at or near capacity. Even if recession brings cancellations, most observers expect the shakeout to cut backlogs down no farther than to levels that would amount to a year's production.

The freight car market is also volatile, in the sense that nonrailroad interests make up such a big part of it—roughly two-thirds in terms of 1979 orders and deliveries and 1980 backlog. While part of this nonrail activity is rail-related (Trailer Train and Railbox), a good part of it isn't, and some of the outsiders have been faring less well recently as railroads began to add up the cost of using "outsider" cars subject to incentive per diem and found that cost prohibitive. As a result of their cost findings, railroads have asked the Interstate Commerce Commission to wipe out IPD on all cars (boxcars and gondolas). Some outside investors, meanwhile, have cancelled orders even as other outsiders were announcing new programs. Earlier this month, the U.S. Department of Justice got into the act, with indications that it would investigate allegations of conspiracy in connection with railroad ownership and use of boxcars (though nobody was stepping forward to take credit for setting DOJ out on its probe).

The outlook for 1981 has some builders just a bit concerned: As one puts it, "I am not comfortable with the 1981 backlog outlook." While peak-and-valley ordering will likely continue in the freight car business, the definitions will be different: "Valley" once meant a drop down to around 40,000 orders or even 30,000, but orders in 1980—barring a recession of really disastrous proportions—will probably run plus-or-minus 65,000.

● What's coming up? These things might be said about the new-order outlook:

—Plain, 50-foot boxcars of the type being acquired by Railbox and the outside investors interested in IPD are coming to be a glut on the market. Acquisitions have been based upon IPD (in addition to basic car hire income) which the cars could earn while off-line, not on the sort of market demand IPD was meant to respond to. No matter what happens, with either ICC's restudy of IPD or with whatever it is the Justice Department has in mind, boxcar orders will be out of style.



—Covered hopper car orders ought to keep coming, although government policy on grain exports to the USSR is bound to have some impact. Optimistic thinking has it that if the grain doesn't go to Russia, it has to go somewhere—most likely in other export trade—so more covered hoppers cars will still be needed.

—Open-top car orders ought to keep coming, for both hoppers and gondolas equipped for rotary dumping. Here, too, though, there are questions, most of them relating to federal policy involving use of coal but some also having to do with coal operators' ability to get mines into production and utilities' ability to get coal-fired plants into service.

—If Railgon (another spinoff of Trailer Train) gets working, the plain gondola market should get a boost regardless of what happens to the IPD rates placed upon gons last year by the ICC.

—Flatcar and trailer equipment for TOFC/COFC service ought to be a good market in '80, even with recession. Last year, piggyback volume rose, in the face of beginning recession, and railroad energy efficiencies should keep it going.

● What the market says. In assessing prospects for 1980 and beyond, *Railway Age* surveyed railroads as to their capital and maintenance spending programs for 1980, a survey that pointed to an increase of close to 15% on the capital side for improvements to equipment and plant (*RA*, Dec. 31, p. 16). In assessing these prospects from the supplier side, *RA* also surveyed major carbuilders and component suppliers.

First, look at the numbers. If there is to be a major surprise this year, it will come if deliveries of new freight cars drop much below the levels of 1979. Individually, both carbuilders and component suppliers are looking for a 1980 that comes awfully close to matching '79 in terms of production; our own estimate is 85,000 cars delivered.

New orders, however, are something else, and here the suppliers see a definite cooling off. Something in the neighborhood of 65,000 seems to be a popular number for car orders this year, but there are also those who look for new business to decline even further from the 100,000-plus levels of the past two years. ACF President Henry A. Correa, for example, estimates that new orders will be "substantially lower . . . somewhere between 50,000 and 60,000," and even the most optimistic of suppliers don't look for orders much above 65,000.

It would appear that the industry is headed, once again, for a valley—but, as several builders are quick to point out, the peak-and-valley situation isn't what it

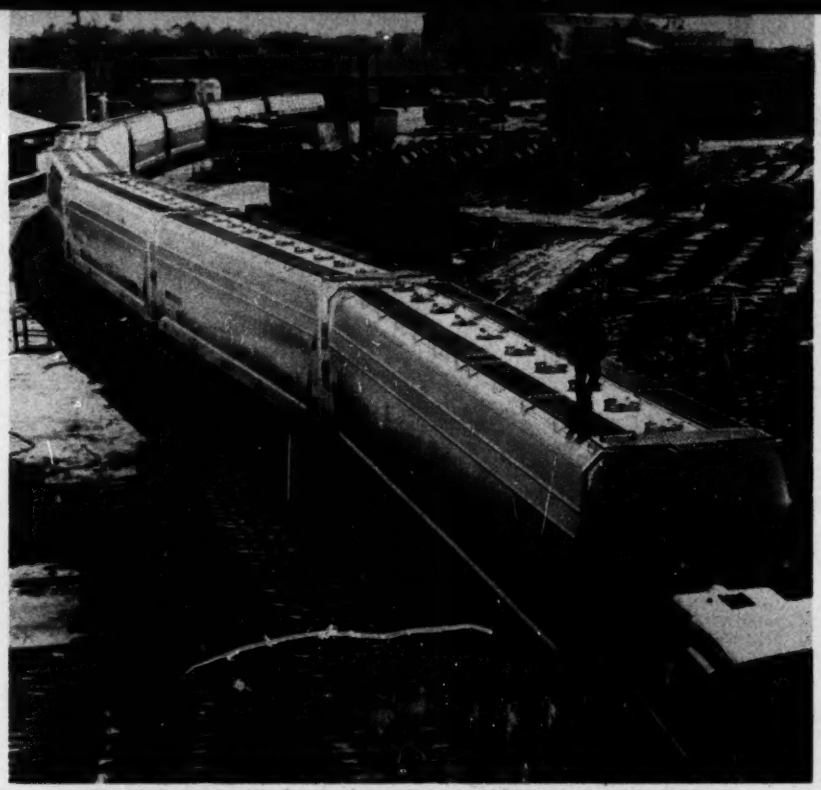
used to be. At Pullman Standard, President Robert A. Cumming sees the decline as representing "a sharp moderation of the historic cyclical decline experienced by the carbuilders and reflects our belief that the trend of industry cycles will flatten over the next several years." W. R. Galbraith, vice president-sales of FMC, takes a similar tack: "I think that when our industry bottoms out again, as it always does with peaks and valleys, the bottom will be higher than it has ever been before. Once, we bottomed out at 29,000 cars, but I don't believe the figure will ever get down there again . . . . Even in a recession year, and coming off an extremely high production year, I still think new orders will be around 65,000."

Recession will be, of course, a major factor to consider, but there will be others—among them the makeup of the market itself and the impact of offshore buying.

● **The "outside" influence.** In the recent past, car orders have been split roughly one-third and two-thirds between railroads and outside purchasers, and there the outlook is somewhat murky; carbuilders are closely watching the situation, and most builders apparently are looking for a decline in the percentage of orders coming from the outside.

Concerns in this area are real. R. L. Duchossois, president of Thrall Car, expresses it this way: "Third-party money or 'tax shelter' orders are being placed rather than the traditional 'need' orders. I am not really comfortable with this, as I don't believe locomotives can be purchased fast enough to move all the equipment being purchased." John C. Felten, president of Evans Products' Transportation Systems and Industrial Group, elaborates on the theme: "One disturbing note concerning the 1978-79 statistics is that, in my view, much of the 'demand' for new rolling stock. . .has come about as a result of supply/push, rather than demand/pull by railroads and shippers. This may have resulted in artificially high beginning-year backlogs for certain car types, such as standard boxcars, where the shortage has disappeared and a surplus is developing. I refer to the supply/push created by demand from individual investors, syndicators, and per diem leasing companies."

Consensus, not surprisingly, is that the elimination of incentive per diem would put a definite damper on "outsider" car orders, but there are exceptions. ACF's Correa, for instance, sees "no major reduction. . .with the elimination of IPD, since the basic per diem is now close to 80% of the old rates including incentives." And Thrall's Duchossois takes a pragmatic approach: Elimination of IPD, he believes, would indeed reduce orders, but "we as an industry must realize that we can't always have the best of both worlds. If the railroads don't get a satisfactory return on their investment, there won't be a marketplace for our equipment, and the question becomes academic."



A new railcar builder, Ingalls Shipbuilding division of Litton Industries, assembled these covered hoppers for North American Car under a 10-year agreement. Renovated shops at Ingalls' Pascagoula, Miss., shipyards can turn out about 5,000 cars a year.

● **The offshore influence.** Then there is the matter of foreign competition—the importing of both components and entire car kits—and here it's a bit harder to arrive at a consensus.

FMC's view, put bluntly, is that foreign competition "will dry up" when domestic industry can satisfy demand, and in Evans Products' view, that time is now: "The current capacity of the domestic carbuilding industry is sufficient to satisfy long-range requirements of the railroads and shippers." In that connection, Evans' Felten notes that the present duty on imported freight cars is expected to be maintained.

Thrall's Duchossois and Peter C. Bayer, senior vice president-marketing and engineering of Berwick Forge, however, both warn of the impact of the kit imports, and Pullman Standard's Cumming sees a potential long-range problem: "Often highly subsidized, foreign competition will be a growing threat to U.S. carbuilders, particularly if the forecasted stabilization of the U.S. railcar market occurs."

Sharing the long-range concern is R. C. Ortner, president of Ortner Freight Car; it is the import-components aspect that concerns him most. Ortner recalls that, in past lean times in the carbuilding market, many component manufacturers "had to look to other industries for business." Then, when carbuilding picked up again, "some of the former suppliers were missing, or were only willing to furnish parts at elevated prices. . . .In fact, it was the capacity of the suppliers rather than the capacity of the carbuilders that leveled railcar deliveries although orders were on a peak-and-valley pattern after World War II." Now, Ortner observes, availability of offshore components has changed the picture. Now, production can also have peaks—along with valleys that "could be disastrous to all but the tried and proven companies. Hopefully, in the valleys of the future we won't drive more component suppliers away from the railroad industry—but I think the situation will be worse than ever, as foreign parts are even dumped onto an almost nonexistent market to clear inventories."

● **Shortages? Some, but. . .** By and large, both builders and component manufacturers do see shortages easing, with the pace of freight car production slowing somewhat this year and with orders expected to fall more sharply. At the same time, producers of the components that have been in tightest supply—including wheels and truck castings—have been making sizable investments in plant expansion, counting on demand to remain relatively high and hoping that their faith in the market will be recognized if times turn lean.

Shortage of most major components "should be alleviated in 1980," says Richard J. Quilter, manager-transportation sales of Standard Steel, "with wheels probably still continuing to be tight. For-

Will this be the year of the RoadRailer?

There will be "new" in 1980, there always is, in terms of the design of freight-carrying equipment going into service. But this year there may also be "radically new"—as represented by RoadRailer, the vehicle that carries rail and highway wheels along with it.

RoadRailer's developer, Bi-Modal Corp., has been beating the drums for this intermodal concept for the past couple of years, experimental work at DOT's Pueblo Test Center has brought RoadRailer good marks, and North American Car Corp., which has helped to bankroll development, is ready to go. While bench testing of the braking system (required by FRA) remains to be completed, North American is indicating that service will begin this year on one or more railroads, with 250 units a likely first order.

James H. Ozanne, president of North American, puts the near-term and the long-term this way: "RoadRailer will be put into commercial operation during 1980, offering significant economic benefits to railroads and shippers, versus conventional piggyback operations. . . . Government-funded studies have projected that piggyback operations could be expanded to 10 million trailerloads per year on a profitable basis. Frankly, we don't think this will happen. Instead, the introduction of RoadRailer will cause piggyback growth to level off short of that mark [and] the substantial growth that piggyback has experienced in recent years will be diverted to RoadRailer. The competitive economics of RoadRailer will cause the market for rail-highway intermodal movement to double to 20 million trailerloads per year,and we see the start of RoadRailer commercial operations in '80 as a major milestone on the way to gaining that doubling of the intermodal market."

eign competition remains a threat, although dependence on foreign sources should diminish, particularly for wheels, in the next two years." In that context, Quilter adds, "we still object strenuously to the lack of import duty on wheels."

Clearly, though, the long-term impact of offshore buying remains to be assessed. As Charles N. Hood II, director, market development of ASF, puts it, the entry of foreign competition into the domestic market "is virtually a new experience for the railroad casting supply industry." But, he adds, "assuming that free market forces are allowed to govern—no subsidies or other distorting arrangements—ASF does not believe it has anything to fear from such competition, simply because we believe ourselves to be better than cost competitive."

There are a few other problems—including the supply industry's own problems in maintaining profitability in stressful economic times. R. F. Murphy, vice president of Holland's Rail Equipment Division, notes, in particular, that "no one seems to have a real fix on labor and material costs, and increases come like unanticipated snowstorms." J. C. Janke, vice president-marketing of WABCO's Westinghouse Air Brake Division, takes the problem a step farther: "In a business cycle where insufficient capacity is a key limiting restraint and labor and material costs are escalating at a record pace, maintaining profitability—especially as measured in profit margins—will be very difficult and require constant management attention."

If activity in 1980 does slow somewhat from what ASF's Hood accurately terms the "frantic" pace of 1979, however, there could be a few benefits in the profit area. In recent times, as FMC's Galbraith points out, carbuilders have been turning out new equipment at rates that may have involved trade-offs between efficiency and volume: "There are some cost efficiencies that could be put in, at a lower production rate."

At the same time, if new orders do turn down, other factors come into play to work on profitability. As Pullman Standard's Cumming points out, "Profitability will be affected more by margin pressures due to increased competition than by escalating costs, since most orders incorporate escalation clauses."

● **As for a backing-away. . .** In addition to the impact of the expected downturn in orders, of course, there is the matter of cancellations to consider, and on this point suppliers are somewhat divided. On the one hand, Bethlehem Steel sees cancellations coming, but they "should not significantly alter the total number of car deliveries anticipated for 1980; other cars currently in carbuilders' backlogs will be advanced to solidify 1980 schedules." Similar thinking holds at Westinghouse Air Brake. Even with cancellations running as high as 20,000 to 25,000 cars, says Janke, "the backlog will remain healthy and carry us well into 1981."

At this point, such other companies as Pullman Standard, ACF, Holland, ASF, and Evans are not particularly concerned either about the effects—or the likely numbers—involved with cancellations. But Thrall Car confesses to a gut feeling that the backlog "isn't as solid as most believe. Although most companies have a sold-out 1980 production schedule, this is the result of the high level of orders placed by leasing companies in late '78 and early '79," some of which have already been dropped. (There is, though, at least one shop where cancellations will definitely not be a problem: "Due to the custom nature of our product," observes Union Tank Car President Jack R. Kruizenga, "cancellation is not an option the buyer/lessee has available to him.")

● **Down the road.** After looking back and looking around and after considering many of the factors affecting the railroads and the industry and the market, how do carbuilders and other suppliers really think? Without exception, those surveyed think positively, for the short and/or long term. They express that optimism in several ways.

The carbuilding industry, says Evans' Felten, "has shown that it can respond to cyclical swings in the demand for railroad equipment. It has shown that it can respond to shipper needs through the design, development, and production of car types which help those shippers reduce costs, ship more efficiently, and keep their business riding on the rails. The continued and growing cooperation among railroads, car manufacturers, leasing companies, and shippers, in my view, guarantees a bright future for all those involved in the railroad supply industry."

ASF's Hood is no less optimistic—"if." For the long term, he observes, "the prospects for our marketplace, the railroads, should include significant growth. I say 'should' because two caveats apply: Good government and good management will both be needed if the growth expectations are to be fulfilled."

As for Thrall, while its optimism regarding the carbuilding may now be somewhat guarded, there is, nonetheless, optimism because, Duchossois says, the industry "is far more imaginative and creative in marketing, engineering, and production than it has ever been. The need for our product is there—and it is up to us as producers to get it to the marketplace in a manner that is economically sound for the customer."

For a summing up, there is WABCO's Janke: "There are some major problems—but the opportunities and the overall climate seem to be swinging in favor of railroads."

A completed locomotive body is lowered onto a truck assembly at LaGrange, Ill., where EMD built 1,340 units in 1979, 1,299 for U.S. roads.

Locomotives: Just as many, more efficient

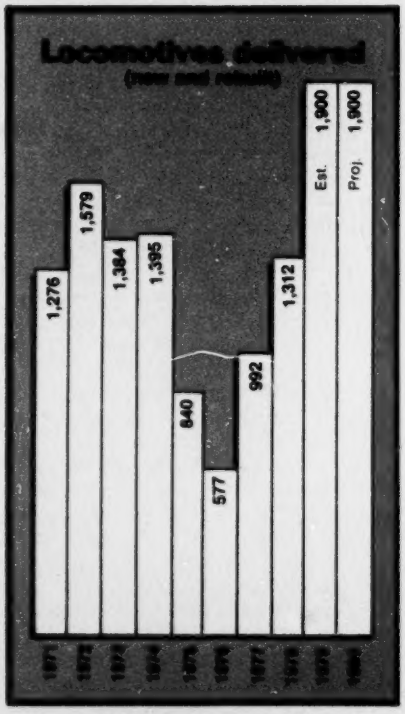
Locomotives coming into service in 1980 will be an improved breed, reflecting a new coming-together of demand and design in several key areas.

The demands are for greater fuel efficiency, for provision of greater usable power at the rail, and for improved reliability coupled with ease of maintenance. And if the designs being turned out by all builders don't yet go all the way to meeting those tough requirements, they are coming ever closer.

The market itself continues to look good, at least through 1980. Builders and rebuilders produced about 1,900 units last year; while the current backlog is down from what it was a year ago, major manufacturers still see better than a fair chance that output in 1980 can equal that of 1979 (which was at the highest level since 1953).

● **Back at R&D...** While they were working at or near capacity last year, locomotive builders by no means neglected the research-and-development area—an area in which priorities may have shifted somewhat. For years, railroads have said that improved reliability was Priority No. 1—but with diesel-fuel prices *averaging* more than 73 cents a gallon in 1979, improved fuel efficiency has come to be, at the very least, Priority No. 1A.

General Motors' Electro-Motive Division responded to No. 1A with, among other things, development of a more fuel efficient engine, the 645E3B, which went into production last July and was made available both for new units and for retrofit. Reductions in fuel consumption are achieved through improvements that turn small individual savings into a significant overall saving: improvements related to such things as a reduction in engine-idle speed, greater thermal efficiency, modifications in operation and control of dynamic braking and radiator cooling fans, and use of an automatic engine purge control that permits engine shutdown at ambient temperatures of 50°F and higher. At utilization levels attained by SD40-2 and GP40-2 units, EMD pegs fuel savings at up to 13,200 gallons a year.



General Electric is also stepping up its pace in the race for fuel efficiency, also with a package of improvements involving the engine itself, the turbocharger and turbo seal system, optimization of the engine speed schedule, and modifications in the radiator fan and dynamic braking systems. In comparing fuel economy, GE puts its new B36-7 unit up against the earlier U36B: Utilizing a typical freight duty cycle, GE says, it's possible to estimate fuel savings of 7.2%, or 27,400 gallons a year, assuming a 90% locomotive availability.

For its part, Morrison-Knudsen is taking a different approach, using the Sulzer diesel engine and now approaching the low- as well as the high-horsepower market. Most recently, M-K had a 1,500-hp unit, the TE50-4S "Fuel Saver," out for tests on Chicago & North Western; the locomotive, powered by a turbocharged six-cylinder Sulzer engine,

Aggregate fleet horsepower jumped nearly 3 million since late '78 and may jump as much more in '80.

showed impressive numbers in comparison with fuel consumption of other 1,500-hp units. In a carefully monitored test conducted last November, for example, C&NW ran a consist of the M-K unit, a GP15, and a rebuilt GP7, and when all the fuel measurements had been taken, North Western found that, on the basis of fuel consumed per 1,000 horsepower-hours produced, the Sulzer-engined unit came in first. Stated as a percentage of fuel used by the test unit, the GP7 came in at 111.3% and the GP15 at 116%. Looking at those numbers, John D. O'Neil, assistant vice president-motive power for C&NW, also found a belief reinforced: "Everybody talks big horsepower—but the lower horsepower range is open for a terrific fuel savings."

● **At the top...** Bigger horsepower, however, is still where much of the action is, and all of the builders are providing it.

For EMD, this means the "50" series, the 3,500-hp GP50 and SD50 equipped with turbocharged 16-cylinder 645F engines. Twenty-three prototype units, designated GP40X, have been under test on four major roads for more than a year; the first production GP50s will be shipped in April, with the first SD50s scheduled for delivery in 1981.

Fuel efficiency is a factor with the 50 series, but the biggest advantage of the 50s may lie in increased hauling capability made possible by improved adhesion factors. The key to this improvement, EMD says, lies in the so-called Super Series electronic control system, originally estimated to produce a one-third boost in wheel-to-rail adhesion, from 18% to 24%. A number of engine, turbocharger, traction motor, and alternator improvements will be incorporated in the new units, the result of a GP40X testing program that was a bit out of the ordinary in that the GP40X was not a single design with all components in common; component configuration differed from unit to unit so that a number of possibilities could be looked at, with the 50 series then to become a best-possible package.

● **On the road for test.** Among the roads testing the GP40X has been Southern Pacific, but SP hasn't just tested the EMD prototypes. It also has had four GE 3,000-hp B30-7 units; it is scheduled to test four of the new GE B36-7 units beginning in February; and it has had well over a year's experience with M-K's TE70-4S units equipped with 12-cylinder Sulzer engines. SP hasn't said much, yet, about its testing program and what the program has shown, but indications are that it may soon be ready.

In the meantime, GE has been readying for delivery the 3,600-hp B36-7 locomotives, which, GE says, will provide an advanced adhesion control system and the continuous tractive effort capability to use it. GE calls its entry in the adhesion race the Sentry Adhesion System, a system designed to provide higher levels of all-weather adhesion without compromising wheel or rail life or sacrificing fuel efficiency. Sentry, GE says, has been tested under adverse weather conditions, on severe grades, and on reverse curves at adhesion levels of from 23% to 26%, with results indicating that "railroads can safely increase, on a regular basis, the tonnages assigned to the B36-7 over those presently assigned to other four-axle units."

Sentry works on a multistage response basis, starting with an application of sand at the first sign of slip. Stage 2, which the builder says won't be triggered in the great majority of cases, includes sanding as well as a small reduction in tractive effort followed by gradual reapplication. Stage 3, if it should be needed, follows up with a greater reduction in power. Return to the pre-slip notch control is then made automatically as conditions improve. As for the low-speed range—where highest adhesion is needed but where the tendency toward wheel slip is the highest—GE attacks the problem through connection of motors in parallel so that one slip will not affect other motors.

Of course, even with the increased emphasis on fuel efficiency and on provision of greater usable power, railroads haven't forgotten their demands for greater reliability and for greater ease of maintenance—and neither have the manufacturers.

EMD, for example, had been no stranger to turbocharger problems, but it looks at the turbo as a long-life component, one that should go six or seven years before needing change-out. Similarly, module maintenance should be reduced on the 50 series, and accessibility has been improved, especially on the six-axle SDs.

As for M-K, it continues to see great promise in the rebuild market as it keeps trying to crack the new-unit market. About 65 locomotives went through the rebuild process last year, more than had been forecast, and the outlook for '79 is for an increase of about one-third in rebuild operations. At the same time M-K continues to plug both the big and the little Sulzer-engine units, for both new and rebuilt power—and it is frank to admit that there were problems, early-on, with the big units in tests on SP. Specifically, there were problems with exhaust valves, but with a switch to "nimonic"-type valves and a change in the valve guides, M-K thinks the problem has been solved. Still, even if problems have been solved and even if SP should find the Sulzer an excellent piece of machinery, M-K has a problem, and it has to do with the simple fact that railroads are reluctant to complicate maintenance, repair, and parts inventory unless a new type of locomotive can really represent a significant jump forward.

Ironically, perhaps, while M-K is working to introduce the European-developed Sulzer engine into the U.S., U.S. builders are continuing to find success in the export market. EMD, for instance, is cautious because of the buildup of world tensions—but as the same time, it has had "considerably more" inquiries than it had a year ago.

● **For tomorrow.** Overall, if you tap the thinking of such as Peter K. Hoglund, GM vice president and general manager at EMD, or Warren A. Fox, EMD's director-sales and service; GE officers such as Robert Weeks, manager-operational and product planning, and Frank L. Baumgardner, manager-remanufacturing; or J. G. Fearon, vice president and general manager of M-K's Railroad Division, you are hard put to find pessimism regarding 1980: The business is there, and it's there in a couple of forms.

There is, of course, the new-unit demand, which ran to something over 1,700 locomotives last year and promises to approximate that figure in 1980.

There is also the rebuild demand, which increased last year and may at least hold steady in '80, given the capacity or near-capacity operations of new-locomotive builders, plus the capabilities of such railroads as Santa Fe and Seaboard Coast Line, plus the additional capabilities of commercial rebuilders, among them M-K, Precision National, and Illinois Central Gulf (which will do work both for ICG and for other locomotive owners at its Paducah, Ky., facilities).

What will the numbers show at this time next year? Probably they won't show any tremendous increase in number of locomotive units in service, after retirements of worn-out units are taken into account. But they should show another significant increase in aggregate fleet horsepower; horsepower jumped from a bit more than 60 million in late-1978 to about 63 million as 1980 began, and a similar increase for '80 is not out of the question.

What that adds up to is increased transportation capability.

Outlook for 1980

Most roads will maintain track work at last year's high levels, though a stretching-out of Conrail's programs could lower industry totals. Meanwhile, improvements aimed at improving traffic-handling capability are getting more and more attention.

Fixed plant: A slight shift in emphasis

If the estimates are on target, railroads last year had capitalized expenditures of a bit more than $1 billion for roadway and structures improvements, and fixed plant maintenance expenditures of more than $4 billion.

For this year, surveys indicate that the industry will not be falling back into old, deferred-spending ways—either capital or maintenance—although there will be shifts in spending emphasis.

If one word could be applied to planning for 1980 in this broad area, it would probably be "consistency"—in the sense that budgets continue to call for substantial expenditures for improvements in yards and terminals (very much including TOFC/COFC facilities). While one forecast sees less new rail and fewer crossties scheduled for installation this year, a single railroad may wind up accounting for a great part of those cutbacks.

Actually, roadway and structures capital expenditures haven't showed a decline since 1975, and the operating expense charged off to maintenance-of-way-and-structures has been increasing every year since 1968. This means that the railroad plant is in better shape now than in quite a while—with no setbacks coming.

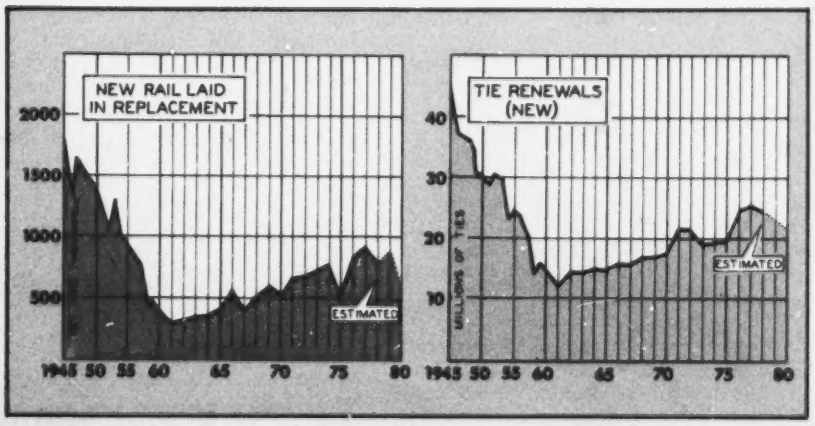
A number of factors have had a bearing. One, from the outside, was the promulgation of FRA's track safety standards, which have lately been undergoing revision. Another was a management recognition—on those roads that had allowed maintenance to slip somewhat—that retrenchment had perhaps gone too far, and that traffic levels (to say nothing of projected traffic increases) were demanding that maintenance operations be stepped up. Then there was the federal assistance, through loan guarantees and purchase of preference shares, provided under the 4R Act in 1976; most of the federal aid thus far provided has gone for improvement of plant. 4R came on top of 3R, the Regional Rail Reorganization Act, which got Conrail started on a long-term rehabilitation program, and there was also the Northeast Corridor project, begun as a five-year job but now stretched out for three more years.

● **Looking at '80.** For 1980, the projections now do look for an overall drop of something around 20% in new rail installed and a 10% decline in crosstie insertions; most of the reduction in both categories, it appears, will be accounted for by a stretching-out of work at Conrail (which has already made impressive strides in track rehabilitation work). In spending for track surfacing—work which has shown nothing but increases for at least 10 years running—the outlook is for another year of increase.

In the meantime, what about developments in track machine technology? One veteran observer looks back at 1979 as a year with, really, no outstanding technological breakthroughs, none of the kind that would have a major impact upon m/w efficiency. Several machines did come into wider use, including the track renewal train and the rail change-out unit, both of which could have substantial effect with still broader application. While all manufacturers of m/w equipment were making modifications to gain greater efficiency, a few entirely new machines did come into the marketplace, including Plasser's rail-contouring machine and Loram's device for measuring and analyzing rail corrugations electronically.

● **Where the needs are.** Railroads applauded improving technology, even as they called for more improvements—in different areas, especially as regards work practices. For some roads, there seemed to be an emphasis on off-track equipment; others called for the kind of machines that could clear quickly and just as quickly get back on the job; still others seemed to suggest that increasing traffic volumes and increasing frequency of train movements would mean increasing dependence upon manpower and smaller machines that could get work done without delaying either train movements or the track work itself.

Despite the "standard" concentration on m/w expense as a measure of what railroads are doing in the fixed plant area, m/w expense is not the only mea-



Union Switch, GRS land big signaling contracts

The new decade opened auspiciously for two of the biggest suppliers in the signaling field. On Jan. 9, Union Switch & Signal Division of WABCO emerged as the apparent low bidder on train controls for the first 20.5 miles of the Dade County (Miami) Metrorail system. The Union Switch bid was $27,964,645, which enormously pleased the Dade County people because their engineers had estimated the cost to be $42,962,600. General Railway Signal was a close runner-up with a bid of $29,002,592. Westinghouse Electric bid $39,199,500, and Siemens $42,955,847.

One week later, the Washington Metro opened bids on train controls for 19 miles of extensions—and this time GRS narrowly edged out Union Switch as the apparent low bidder. The GRS bid was $26,750,684. Union Switch bid $27,647,374. The engineers' estimate was $32,828,160.

Another big contract to be awarded this year will be for signaling the northern end of the Northeast Corridor Improvement Project, from New York to Boston. Washington sources say this contract will be worth around $48 million. General Railway Signal last year won a $77.9-million contract, biggest in its history, for signaling the Washington-New York portion of the NECIP.

All of these contracts involve federal money. Today, in fact, federal funding is accounting for about 50% of the entire market for signaling hardware and know-how—a market that may total as much as $250 million this year, by one authoritative estimate. "As long as the federal money keeps pouring in, we see nothing but good times ahead," one supplier told *Railway Age*. Federal money is financing not only improvements to passenger systems (Amtrak as well as commuter and rapid transit) but also highway grade crossing protection. Federally financed crossing improvements are now funneling more than $90 million a year to half a dozen producers of protection equipment.

sure—not when 1979 saw $1 billion or more spent in capital investment. Nor is roadway-track expense per se the only measure in either capital or maintenance dollars, because of concurrent improvements being made in signal systems and in terminal improvements.

In short, railroads—some of them—need improvements in traffic-handling capability, and there are only a few ways of getting those improvements. One is to add track, to double-track single-track lines or to add a third track to double-track lines; Union Pacific, for one, is doing some of this.

Another way is to add centralized traffic control and/or to make existing ctc systems more flexible; UP and Burlington Northern, for two, are also working in this direction, and one of the major ctc projects coming up will involve the signaling of BN's new 116-mile coal line (basically a single-track line) between Orin and Gillette, Wyom.

Still a third way to boost operational capability is to improve yards—something, for example, that UP is doing at North Platte, Neb., Chessie System has been doing at Cincinnati, Southern has been doing (systematically) throughout its system, and Family Lines has been doing at such key points as Louisville and Waycross, Ga.

● **As for piggyback...** TOFC/COFC terminal facilities are also getting high-priority attention, what with three consecutive years of piggyback traffic records. Even though piggyback may be starting 1980 at less-than-record pace, economy-sensitive as it is, programs to increase terminal capacity are continuing because most major TOFC/COFC operators saw 1979 as a harbinger: If '79, with its no-directional economy could see new records set for piggyback traffic, any upturn in the economy has to mean a substantial upturn in TOFC/COFC, and the business is going to go to the railroad that's ready for it.

One key to railroad planning for track improvements and terminal improvements has to be government policy—FRA policy in the area of setting new track safety standards and, especially, broad government policy that could bring large new volumes of traffic to the railroads. Nobody really expects government to ease up on safety (only, perhaps, to become more realistic), but some people do expect government to do certain things, in the areas of regulation and the promotion of energy efficient carriers, that could make the 900 billion ton-miles of 1979 seem not so big after all.

● **How much, how soon?** There is really no way of knowing, now, how much railroads ought to be spending in 1980 and beyond for improvements to and maintenance of fixed plant.

What is known, however, is that well-to-do railroads will continue to get better, in terms of handling traffic at speed and with efficiency while less-well-off roads will continue to lose business to those that can handle it better—a fact that both government and rail labor unions have been less than quick to recognize.

If you look at a Norfolk & Western, a Chessie, a Conrail in the East; a Southern or a Seaboard Coast Line/Louisville & Nashville in the South; a BN, a Santa Fe, a UP, a MoPac, or a Southern Pacific in the West, you're going to see better track, along with terminal facilities that are capable of handling more business. With some exceptions, however—and a few trying-hard roads do come to mind—improvement programs are going to be of minimal nature, because the money just isn't there.

Where, in all this fixed plant consideration, does the public interest lie? In two places: first, in safe railroading, in the maintenance of safe operations; second, in the maintenance of what can be economically maintained, because after safety comes the maintenance of a rail system that can support itself.

What this comes down to, probably, is that by the end of 1980 there will be a few thousand miles less track to maintain, a number of terminals that won't exist any more—track and terminals that the western bankrupts no longer have to operate, track and terminals that other roads will be able to dispense with in the interest of maintaining and improving that which remains.

Since 1975, railroad miles of line has been below 200,000 miles, and miles of track dropped under 300,000 miles a couple of years ago. While a few shippers, most of them small shippers, keep arguing with cutbacks, cutbacks serve both the railroad industry and its customers, in the sense that the railroad is a volume carrier that demands not just per-car volume but per-train volume in order to make it in the face of current labor and other operating costs. To put it another way, the railroad is not really a social institution—and when rail transportation is regarded as such, legislation and private options now provide means by which users can make their own deals for the preservation of service.

Eventually, you get down to this: Railroads in 1980 are going to do both less and more in fixed property improvement and maintenance—and, despite what any survey may show, "more" will mean an increase in the capability for moving more traffic, more trains, more safely. ■

Review of 1979

The plus factors add up

That final year of the '70s, 1979, was another of those "mixed blessing" years for the railroad industry—but this time the mixture was more to the industry's liking than it has been in more than a few years.

On the positive side, there were these developments:

—For the industry and for many individual roads, net ordinary income and rate of return were up. For some roads, the net figure hit record levels (albeit in inflated 1979 dollars).

—Although the national economy often seemed unsure of itself, rail freight traffic, measured in ton-miles, reached a new record high. Coal, grain, and chemical traffic were major contributors as the ton-mile figure climbed to about 900 billion, and TOFC/COFC carloadings and trailer/container loadings overcame the mushiness of the economy to set new records for the third straight year.

—Freight rates were up, of course, but the average ton-mile cost of rail transportation still stayed under three cents, at an estimated 2.7 cents.

—Railroads and railroad labor? For the most part they remained at peace. Agreements reached with two unions early in the year wrapped up contract negotiations on the national level, and only the confrontation involving Rock Island, the Brotherhood of Railway and Airline Clerks, and the United Transportation Union put a major blot on 1979's record.

—On the Washington scene, the general tendency seemed to be one of easing up on regulation in a number of areas, even as proposals for deregulation were getting a hard look from the Administration, Congress, and the industry itself. The Interstate Commerce Commission, for example, lifted regulation on rail movement of perishable commodities and began looking at relaxation of regulation involving TOFC/COFC operations. ICC also undertook new studies of the role it should play, if any, in connection with the mandating of car service rules, and, in response to industry initiative, it began to rethink policies regarding car hire rates, especially incentive rates. As for broad-brush deregulation, Administration proposals came early in the year, congressional consideration later, and at year-end the Senate Commerce Committee had approved a deregulation bill the industry could accept with some reservations. There were fears in some quarters that attempts would be made to amend the legislation by placing severe restrictions on railroads' freedom of action on coal rates, but '79 came to an end with this problem still just a potential one. The House had lagged behind the Senate on deregulation, but there were indications that it might be gearing up early in 1980, perhaps with legislative proposals that would go beyond deregulation itself to consider other, even broader, industry matters.

—Restructuring of the industry, or of some parts of it, moved ahead slowly—but it did move, as the ICC approved one consolidation proposal (Grand Trunk Western acquisition of Detroit, Toledo & Ironton and Detroit & Toledo Shore Line) and drew closer to decision time on a couple of others (Burlington Northern-Frisco merger and Southern Pacific purchase of Rock Island's line between St. Louis and Kansas City and Santa Rosa, N.M.). Meanwhile, both bankrupt western roads, Rock Island and Milwaukee Road, filed reorganization plans with the courts.

—Finally, the industry did another tremendous job of self-help in '79, especially in terms of modernizing and expanding locomotive and freight car fleets. Installations added up to about 1,900 locomotive units and 90,000 freight cars. While many of the cars were supplied by customers and other investors, railroad capital investment for 1979 still totaled approximately $3,167,000,000 (including investment in fixed plant). Capital spending again far surpassed retained funds, but at least the shortfall was slightly less than it had been in 1978.

Then there were the negative aspects of '79, the "blessings" that the industry would have preferred to do without:

—Fuel prices skyrocketed, almost doubling from the averages of 1978. For the industry, the average cost of a gallon of diesel fuel jumped from 36.54 cents in '78 to 72.68 cents last year, and western roads were particularly hard hit as the average went from 35.36 cents to 73.69 cents.

—Inflation continued to hit other prices as well, even as economists continued to talk of recession, and at year-end a softening had indeed set in. End-of-year forecasts looked toward a decline in rail carloadings of 4.5% to 5% for the first part of 1980, and some economists were starting to hedge on earlier predictions that general business conditions would begin to improve along about the end of second-quarter 1980. Complicating the forecasts were other factors, national and international: The former largely had to do with the onset of the political campaigning season; the latter seemed even more complicated, with turmoil in the Middle East taking its toll, peace threatened, and, from an economic and transportation standpoint, new and unwanted uncertainties regarding petroleum supplies and grain exports.

—On the competitive scene, railroads continued to have problems in trying to maintain (let alone increase) market share, despite proven operating efficiencies that should have been paying off in times of fuel scarcities and soaring fuel prices. The issue of coal slurry pipelines didn't attract the attention that it had earlier, but the issue was far from gone: a House committee approved legislation that could lead to grants of eminent domain to pipeline builders.

—On the regulatory front, despite ICC actions (or the beginnings of actions) that could be regarded as positive, controversy continued as to the commission's interpretation of the supposed regulatory reforms contained in the Railroad Revitalization and Regulatory Reform Act of 1976. Railroads had long argued that ICC was not following the intent of Congress in a number of areas, and late in '79 their argument got support in a lengthy report commissioned by the Department of Transportation.

—Finally, even though the management-labor area was relatively quiet last year, the Rock Island strike and the federal government's handling of the situation left both management and labor concerned, especially with respect to government's ignoring of a key provision of the Railway Labor Act covering creation of emergency boards and the maintenance of prestrike conditions by both management and labor while a board studies a dispute.

So that was 1979—not a great year, perhaps, but a good one, one that could serve as a springboard to better things.

Looking back, AAR President and Chief Executive Officer William H.

to a year of progress

1979 at a glance

	1979	% change from 1978
Revenue carloadings	23,876,524	+2.2%
Revenue ton-miles	900 billion	+4.9%
Revenue per ton-mile	2.70 cents	+9.8%
Total capital outlays	$5.5 billion	+37.5%
Freight cars installed	90,000	+34.2%
Locomotives installed	1,900	+63.0%
Employees	505,300	+2.9%
Average annual earnings	$22,600	+9.9%

Dempsey saw the industry making "important advances on a number of different fronts in 1979." Looking ahead, he saw an industry that "appears to be on the verge of a substantial long-term comeback when the national economy recovers from its present difficulties."

AAR's top officer did not minimize the problems, among them problems related to government, but in this area he was not pessimistic: "We still have some major legislative hurdles to clear, but in this effort we should have the cooperation of important shipper organizations, rail labor, the supply industry, and the Administration, and we are confident that Congress will act in 1980 to begin the process of basic regulatory reforms which is essential to the continued progress of the industry."

He concluded that, while nobody is predicting another record traffic year in '80 because of economic conditions, "beyond that there is a solid base for optimism. . . . The industry's fortunes generally appear to be on the upswing, looking at the broad picture."

Financial results

It was hard to argue with AAR's observation that 1979 was "a year of progress" for the railroads financially. As reports came in for the first, second, and third quarters, a significant number of roads were reporting record highs, and through nine months the industry as a whole could point to ordinary income of $476.1 million, in sharp contrast to the nine-month report for 1978, which showed a deficit of $39.4 million. Rate of return for the 12 months ended Sept. 30 was pegged at 2.53%, up from less than 1% for the comparable 1977-78 period. Final figures on calendar '79 would show that the rate topped 2% for the first time in five years; while that was encouraging, the return was "still far from adequate," as AAR was quick to note. A slight improvement was indicated in terms of the excess of railroad capital expenditures over retained funds, but for the year as a whole, it appeared that the industry would show a drop in working capital for the first time since 1975.

Capital expenditures

Total capital expenditures by railroads and outside interests in '79 approximated $5.5 billion, a number that reflected not only the inflation factor but also a high level of freight car and locomotive installations and an increase in spending for fixed-plant improvements.

Deliveries of new and rebuilt locomotives were the highest since 1953, and installation of approximately 90,000 new and rebuilt freight cars put fleet additions at the highest total since 1967. Backlogs for both cars and locomotives, meanwhile, remained high, with carbuilders and railroad shops going into 1980 with better than 120,000 cars on order.

As in the past several years, '79 spending for new freight cars was accounted for in large part by "private" buyers, including Trailer Train and Railbox, with those private sources responsible for about two-thirds of 1979 orders and deliveries.

Traffic and service

On only a slight increase in carloadings, railroads posted an increase of about 4.9% in revenue ton-miles in 1979, which meant that the industry would set a new ton-mile record for the second year in a row. The ton-mile total of 858-1 billion for 1978 broke a record that had stood since 1973, but the '79 figure was expected to be around 900 billion.

In terms of traffic mix as measured by carloadings, however, 1979 results were very much mixed. TOFC/COFC traffic set new records for the third straight year;

coal volume was the highest in about 25 years; grain traffic was described as the heaviest in history during the harvest period; and chemical traffic remained strong. But there were also disappointments, perhaps chief among them the decline in automobile traffic, reflecting the auto industry's own decline in sales and production. Overall, the industry reported carloadings increases in nine commodity categories and declines in 12.

Even where there were increases, however, some of them had to be regarded as less than expected. TOFC/COFC traffic, for example, did not show the gains that might have been predicted in view of rail mode advantages in fuel efficiency. Coal volume fell somewhat below expectations because of delays in development of the western coal industry as well as delays in completion of coal-fired electric utility plants and in conversion to coal of other plants. As for the rail movement of perishables, it will remain for another year to show whether railroads can make a major dent in a market where their penetration had been less than 10%. Produce traffic did increase by about 30% after its movement by rail was deregulated in late May, and various programs providing for balanced piggyback movements (dry freight west, perishables east) were showing promise, but a continuing pattern of increases will probably depend upon the railroads' ability to maintain schedules and users' willingness to provide equipment.

Freight rates

Like just about everything else, rail freight rates went up again in 1979, though perhaps not as much as might have been desired in light of increases in fuel prices and the industry's need for an improved rate of return.

Average fuel prices for the industry as a whole rose from 36.54 cents per gallon to 72.68 cents, 1978 to 1979, and in the West average prices more than doubled. Several fuel-based rate hikes were granted during '79, and ICC did move with relative speed to approve such increases. Still, in mid-December, railroads were back at the commission for a one-year fuel-cost-related surcharge on traffic moving to, from, and within the West, and they were pointing again at problems related to regulatory lag. Even expedited procedures provided for in Ex Parte 311, their petition said, "create a lengthy time delay." By contrast, they said, ICC had adopted procedures that had enabled the trucking industry to recover fuel cost increases with "virtually no regulatory lag," and "just as the trucking industry has been permitted to recover the full amount of fuel cost increases, so should the railroads be permitted to fully recover" on such increases.

The label goes on one of 1,000 grain cars Norfolk & Western is building at its Roanoke, Va., shops.

As for general rate increases, early in '79 the commission came out again for selectivity in boosting rates and ordered staff studies which would look toward development of legislative proposals. In late July, railroads filed for selective increases that would average 8% nationwide but provide revenue increases of substantially less than that when future hold-downs, exceptions, flagouts, and delays in winning intrastate rate boosts were taken into account. ICC granted the requested increases in October, to become effective Oct. 15, with only one major exception.

While these relatively modest rate increases were being processed, the industry could point to staggering rates of inflation bearing upon it. With 1967=100, the producer price index in October 1979 stood at 245.2, but even that paled beside the index of railroad material prices and fuel, which hit 404.7 with an annualized inflation rate (October 1978 to October '79) of more than 41%.

Merger and consolidation

Again in 1979, there was a fair amount of wheel-spinning in the railroad merger movement, but there was also a certain amount of accomplishment.

First, the accomplishment: ICC did approve Grand Trunk Western's acquisition of Detroit, Toledo & Ironton and control of Detroit & Toledo Shore Line, rejecting a competing joint application of Chessie System and Norfolk & Western (which the commission found to be anticompetitive and not in the public interest). ICC also closed the record on Burlington Northern-Frisco merger (though it did not make its decision, as some had expected it would, before the end of 1979).

Now, the wheel-spinning: Southern made news three times, first in calling off a study of the acquisition of Illinois Central Gulf, next in beginning consolidation studies with NW, and finally in participating in a decision to drop those talks. Chessie and Seaboard Coast Line Industries filed a proposal for consolidation, and that case moved expeditiously through ICC procedures, but at the same time the two companies warned that if demands for conditions made by Southern and NW were granted, then the Chessie-SCLI marriage might well be called off. In the West, there was hardly any activity at all, except for that activity related to the two bankrupts, Rock Island and Milwaukee Road.

In the West, Milwaukee Road made several agreements involving sale of trackage in the Northwest to other parties (including BN and Union Pacific). However, Milwaukee could not convey title immediately, because Congress, which had ignored the Rock Island problem, had not ignored Milwaukee; it had rammed through legislation that offered, among other things, an opportunity for a Milwaukee employee or employee-shipper group to acquire the road or parts of it.

The main western consolidation proceeding involved sale of Rock Island's route between eastern New Mexico and St. Louis via Kansas City to Southern Pacific, a sale opposed by other major western carriers but eventually supported by DOT/FRA. When RI was put under control of a directed-service carrier (Kansas City Terminal) late in '79, SP was made a participating carrier even though it is not one of KCT's owner lines, and SP later won temporary authority to operate the so-called Tucumcari line.

Meantime, still in the West, a number of observers went through 1979 wondering who would make a move next. Missouri Pacific had been saying that it was interested in merger or consolidation or acquisition; BN had its merger going with Frisco; SP had made its case for pickup of the RI line into Kansas City and St. Louis; but neither of the other two major western roads, Union Pacific and Santa Fe, had anything going.

Once 1980 dawned, though, merger watchers didn't have long to wait: The next one, on which an agreement in principle had been reached, could be Union Pacific plus Missouri Pacific—and that left observers with an even greater wonder to ponder: Where would all of this, if it all came to pass, leave Santa Fe?

Reorganization

After a railroad files for court protection under the Bankruptcy Act, a plan for reorganization is supposed to be filed—and the implication of the law is that it is supposed to be filed with some sense for timeliness.

The major cases pending in 1979 were

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those of Rock Island and Milwaukee Road—and for them timeliness seemed to have different definitions.

RI had been in bankruptcy since March 1975, and there had been delay after delay in presentation of a plan while RI continued to try to operate its entire system, pleaded (unsuccessfully) for federal financial assitance, and waited for the ICC to approve Southern Pacific's purchase of the Rock's line between eastern New Mexico and St. Louis via Kansas City (a deal that would bring RI well over $50 million in cash).

Finally, on Dec. 28, 1979, RI's trustee put a plan before the court—after the Rock had been struck by two unions in a dispute over retroactive pay, DOT and ICC had found RI cashless, and the commission had directed Kansas City Terminal to assume responsibility for providing service over the Rock's lines. In the eventual shoot-out, six of RI's top officers were released, and SP later won what was called temporary authority to operate over the lines it coveted (along with others), which led to an interesting question for SP: With only temporary authority, no guarantee that authority would be made permanent, and the expectation that a final approval would be challenged, how much could SP afford to gamble on rehabilitation of RI lines that badly needed rehabilitation? At year-end, RI was operating—courtesy of KCT and SP—and its reorganization plan indicated that about two-thirds of the system should be picked up by other carriers or simply abandoned.

For Milwaukee, things seemed simpler, even if they weren't. Milwaukee's trustee had moved quickly to get an assessment of what could survive and what couldn't, and shortly after midyear they filed a plan that called for deep cuts in system mileage. Though government had ignored RI, it virtually adopted Milwaukee, and the result was legislation that stopped the bankruptcy court from giving an OK to an embargo while an employee-shipper group was given a chance to make its proposal for a take-over. The ICC got the employee-shipper plan, looked at it, and decided that it was no go. That decision, handed down unanimously on Dec. 31, 1979, opened the way for Milwaukee to cut back to the "Milwaukee II" envisioned in the preliminary reorganization plan filed months earlier.

In both cases, for RI and Milwaukee, further court proceedings were scheduled for January, and it would be a lot farther into 1980 before final decisions were reached and implemented.

Management-labor

On the national scene, 1979 was one of the quietest years in recent history in railroad management-labor relations—but it was still a year that could have long-term implications, in large part because of the precedents set in connection with strikes by two unions against Rock Island.

Nationally, only two agreements remained to be reached as '79 began, one involving the Brotherhood of Railway and Airline Clerks and the other concerning the tiny American Train Dispatchers' Association. BRAC and the railroads came to a settlement early in the year, but with ATDA—which represents fewer than 1% of railroad employees—it was a different story. That dispute went to an emergency board in May, but once the board set to work, agreement came quickly; it was the first time, the National Mediation Board said, that a national contract dispute was mediated to a settlement by an emergency board within the 30-day period in which a board is supposed to hear a case and prepare its report.

Then there was the situation involving Rock Island. In 1977, bankrupt RI had told union representatives that it would pay wage rates negotiated nationally, but with no retroactivity; unions that signed up by the end of '77, the Rock said, would get whatever was negotiated effective Jan. 1, 1978, but unions settling later would get the new rates at the time they signed agreements. Some unions made agreements before the end of '77, and a number of others waived retroactivity when they settled in '78. Two unions—BRAC and the United Transportation Union—were still outside as 1979 began, and finally the Clerks went on strike, to be followed one day later by UTU. Rock Island tried to do what Norfolk & Western had done a year earlier—maintain operations with supervisory personnel.

In the case of NW, that sort of operation succeeded, and the union was on the ropes when the walkout was finally ended after 82 days with creation of an emergency board. Rock Island, however, didn't have the supervisory manpower or the plant that NW had; still, it tried, and there were some who continue to insist that it was succeeding. What happened was that RI, already in bankruptcy for well over three years, was found to be cashless by DOT and the ICC, and the result was that ICC entered a directed-service order under which Kansas City Terminal was assigned to take over RI operations.

Before that directed-service order was issued, though, the President had created an emergency board to look into the disputes between RI and the two unions. Under the law, that action meant that employees were to return to work while the board carried out its responsibilities; it also meant that status quo antestrike existed, with RI making no changes and employees going back under wage rates and working conditions that were in existence before they walked out.

BRAC balked, and ICC, with support from DOT, authorized the directed-service carrier to pay the "prevailing wage" (not the one in existence when the walkout began) if that were the only way to get employees back to work. Lost in the shuffle, it appeared to some observers, was the law. Not lost, so far as some union observers were concerned, were the implications of what had happened. Through the years, one said, labor had relied on the status quo provision of Section 10 of the Railway Labor Act as a protection for labor—and now there was labor ignoring that provision and defying the law. His fear: Next time, it could be management, and the consequences could be severe (a judgment that other observers regarded as logical, if unrealistic in the political sense).

As a footnote to the RI-BRAC-UTU affair, Rock Island on Jan. 28, 1979, filed its reorganization plan with the court. It called for cuts of about 65% in RI employment.

A second footnote: At year-end an outside company was considering some form of acquisition of a large part of the bankrupt Milwaukee Road in Montana, Idaho, and Washington, and one of its plans was said to be a railroad operation that wouldn't accept standard agreements, an operation patterned more after that existing on Florida East Coast.

For most of the industry, 1980 began with relative peace between management and labor—and with both sides looking toward an eventual resumption of talks at the national level which would produce the agreements becoming effective in 1981. The last time around, management had begun by concentrating on issues related to crew consist, and management made no progress; issues were still fuzzy in early 1980 for negotiations to begin much later, but there were some indications that while labor was still not ready to yield on consist it might listen to change in other areas.

Regulation

Spurred perhaps by the realization that Congress at some point would come up with some form of railroad deregulation legislation, the Interstate Commerce Commission spent a good part of 1979 working on several fronts to ease regulation.

One ease-up did come to pass when in late May the commission finally exempted from regulation the rail movement of perishables, traffic on which the railroad market share had been something under 10%. Almost immediately, business got better. At year-end, perishable traffic was up by about 30% overall, and there were strong indications that these increases represented just a scratching of the surface, with piggyback movement of

perishables expected to show large and continuing gains.

As for TOFC/COFC generally, it too was getting a new look from the ICC, which decided in August to study a partial or even a complete regulatory exemption.

The commission was also rethinking its role in far-reaching matters involving car service and car hire. There appeared to be solid evidence that application of existing car service rules inhibits rather than encourages efficient use of equipment. And on car hire, the industry was making a strong case for elimination of incentive per diem, especially in view of the higher basic rates that went into effect in '79.

Fallout continued from the 4R Act and the ICC's reaction to it since it became effective in 1976. In theory, the legislation was supposed to provide regulatory reform and, specifically, to give railroads more flexibility in ratemaking. In practice, railroads and the commission became bogged down in trying to define one phrase, market dominance, and while they struggled through the semantic swamp other "reform" provisions got less than expected use.

Early in '79, the AAR put the whole matter of the ICC and the 4R Act darkly: "The clear intent of the 4R Act was to lighten the railroads' regulatory burden [but] the commission recently has expanded its scope, intruding more widely into the day-to-day operations of the railroads."

As noted, however, the ICC did later move, or at least consider moving, in a number of areas related to regulation, and in September it even announced that it would reopen its proceeding on market dominance—an action taken after the commission received a study concluding that railroads have market dominance in only 5% to 15% of their markets.

In the meantime, the makeup of the commission changed considerably, and it would change even more in 1980, with both the chairman and the vice chairman leaving the ICC at the end of 1979.

If there were any year-end sum-up needed, especially of ICC handling of the 4R Act, it came in a lengthy report prepared for DOT, a report that took the commission to task for restrictive rulemaking and found that no significant use of the 4R Act ratemaking provisions could be expected so long as ICC's rules are in effect.

ICC is not, of course, the only agency with a hand in regulating railroads, and railroads felt the heavy hand in 1979 from several other governmental bodies, among them the Environmental Protection Agency. EPA came up with regulations on noise stemming from yard operations which carried compliance costs estimated at $91 million by EPA but at $533 million by the railroads. DOT/FRA were also active, with proposals such as one that would require the installation of high-intensity flashing lights on locomotives and, perhaps most importantly, with publication of new freight car safety standards to become effective Jan. 1, 1980.

A tank car retrofitted with shelf couplers, head shields, and thermal insulation in compliance with a government order applying to all tank cars that carry liquefied flammable gas or anhydrous ammonia.

Legislation

With deregulation of air transportation a fact of life, the Administration and Congress moved in '79 to apply a similar fix to railroading (and trucking)—and discovered that deregulation of these major freight haulers was a problem of substantially bigger proportions. At year-end, the Senate Commerce Committee had approved a railroad deregulation bill, and the House was planning to have a draft bill ready early in 1980. The railroads, while they found it possible (albeit with some reluctance) to support the Senate measure, remained concerned about the final form that deregulation would take.

The year began with DOT's then-secretary, Brock Adams, presenting a package of proposals and options to the White House. In March, after considerable debate, AAR directors adopted their proposal, a 14-point program that concentrated on ratemaking deregulation but also covered such areas as mergers, abandonments, car service and car hire, and intermodal ownership.

Within a matter of days, the Administration handed its proposal to Congress. In an accompanying memo, President Carter referred to the industry as the "backbone" of the country's industrial and agricultural production, and he warned that the railroads were facing a crisis that "could have grave consequences for our nation's economy." Regulatory change, he noted, would not solve the whole problem: "Only a complete overhaul of the nation's rail system, leading to higher labor productivity and more efficient use of plant and equipment, may be able to reverse current unfavorable trends." But, he said, without regulatory change there could be a "catastrophic series of railroad bankruptcies, sharply declining services, and massive federal expenditures."

The AAR applauded the Administration's initiative—but it also said that "very significant changes and additions to the proposal will be necessary if the industry is to move toward the financial stability necessary to sustain future rail service." In particular, AAR objected to proposed restrictions on restructuring, cutbacks in rate adjustment powers, and changes in the operation of rate bureaus.

Through the months that followed, the industry continued to work for a rational approach to deregulation, and it wound up endorsing the basic proposals con-

tained in the Railroad Transportation Act of 1979, S. 1946, which had won Senate Commerce Committee approval without a dissenting vote. While the basics of the bill got an OK, the AAR still expressed concern about provisions such as one that afforded special protection to grain traffic in the area of demand-sensitive rates, and another that limited rates on recyclable commodities. Of special concern, however, was a proposal that did not appear in the committee bill: Pressures were being applied to put a severe restriction on the railroads' ability to adjust coal rates, and a battle on this issue seemed to be shaping up on the Senate floor when the legislation reached that stage.

While the Senate bill was principally a deregulation bill, there were some indications that what the House was looking at might be a far more comprehensive measure. At the very least, it appeared that the House approach and the Senate approach would be far enough apart that a lot of work would be needed before a compromise could emerge.

Among other legislative developments: Legislation giving coal slurry pipeline promoters the right of eminent domain got through one committee in the House and went before another, but there was no action planned in the Senate. After a series of exploratory hearings, it seemed likely that legislation would be introduced in 1980 to set up a railroad trust fund patterned after the user-financed Highway Trust Fund.

Transportation policy

In 1979, the National Transportation Policy Study Commission—created by Congress in 1976—laid a 528-page report on the President and Congress, a report that called loudly for less regulation and more capital investment. NTPSC's assignment was to develop transportation "needs, resources, requirements, and policies" for the nation through the year 2000. It concluded that what it termed the world's best transportation system "is in danger" and "may not be able to meet the needs of a growing America"—and that a lot of the blame for this can be laid at the feet of government. As the commission chairman put it, a "maze of federal agencies, congressional committees, and conflicting policies is driving up costs and retarding innovation."

Specifically, NTPSC recommended creation of a single federal transportation commission, consolidation of jurisdiction over all transportation programs within DOT, and similar consolidation within Congress (where some 30 separate committees now have some powers regarding transportation).

The commission's demand forecasts were staggering; they looked toward an increase in domestic freight ton-miles for all modes of up to 226% by 2000. Its more than 80 recommendations included these: Carriers should be able to adjust rates within a zone of reasonableness defined by Congress, with antitrust laws applying; easier market access and exit should be provided; federal and state regulations should apply equally to all modes; federal policy should encourage private ownership and operation through reliance upon marketplace forces; laws and regulations prohibiting or impeding common ownership should be wiped off the books; mergers should be allowed subject only to antitrust laws; transportation companies should be able to make abandonments effective in the absence of public or private subsidies; and users should pay charges that reflect the costs of their use of transportation facilities except where certain social and economic objectives are served, as in the case of mass public transportation.

NTPSC's recommendations were expected to be placed before Congress in legislative form in 1980. In the meantime, what happened in 1979 did little to refute what the commission had said—that there are too many agencies, with too much control, moving in too many directions.

Safety

In 1979, the basic railroad safety record continued to be good—but as in some past years, a series of closely spaced accidents that involved hazardous commodities and resulted in large-scale evacuations put the industry under the gun again.

Government-ordered retrofit of high-capacity tank cars that carry liquefied flammable gas and anhydrous ammonia, retrofit to include shelf couplers and head shields and thermal insulation, was moving ahead on schedule, the industry could report at midyear. But later, while it found that "the risk to the public of catastrophic accidents involving hazardous materials tank cars has been reduced significantly," the National Transportation Safety Board said there were still "serious safety problems," and it put out a recommendation to DOT that would require smaller tank cars carrying hazardous materials to be equipped with shelf couplers by the end of 1980.

Since it was formed, NTSB has made many recommendations, many of which ended up in a DOT/FRA file. One of its proposals in '79 was particularly intriguing for those concerned with both safety and management-labor relations. In a report on a Conrail two-train accident, NTSB called for installation of an improved dead-man control and use of a backup system to insure that signal indications were followed. Finding that in this case the engineer and head brakeman "were not alert," it suggested that the conductor be placed on a freight train in such a way that he be best able to supervise train safety (which could mean that the conductor ought to be in the cab instead of the caboose).

Meanwhile, Harriman safety awards went to Southern, Boston & Maine, Florida East Coast, and Kansas City Terminal, for 1978 employee-safety performance. Also, a number of railroads moved to get greater public as well as employee involvement in safety promotion, for example, Union Pacific with its slogan contest and campaign and Frisco with a management-by-objectives program for safety.

Conrail

In the category of "They said it couldn't be done, but. . .", there was Conrail in 1979. there were the usual slings and arrows, criticisms and critiques. But through the first nine months of the year, CR managed to reduce its losses by 31% as compared with 1978—and in the second quarter of '79, Conrail did what some cynics thought it could never do: It showed a net income instead of a deficit. Conrail attributed its improved showing to increases in freight rates, to increases in revenues per carload, to a reduction in number of employees, and to the improved condition of equipment and plant.

Conrail was still not out of the woods by any means, and both FRA and the United States Railway Administration (Conrail's overseer) were looking hard at the still-troubled northeastern carrier. One point to be considered: Of $3.3 billion authorized for CR, well over $2.6 billion was to have been invested by the end of last year. Toward the end of the year, however, USRA approved an additional investment, and its expenditure would bring the total through the first quarter of 1980 to more than $2.9 billion.

Meanwhile, CR continued a policy not to abandon "active" lines, pending the outcome of congressional consideration of regulatory reform in early 1980.

Passenger service

Amtrak had a few things going for it in '79. More people were riding trains, with patronage hitting 21.5 million riders during the fiscal year, up by 14% from the previous year. Those people had better trains to ride, as late in '79 Amtrak put the first of its new bilevel Superliner cars into revenue service between Chicago and the West Coast.

At the same time, though, Amtrak riders had fewer trains to ride, thanks to cutbacks in service resulting from elimination of a number of intercity trains and the consolidation of others (the cutbacks which were still less than those originally proposed by the Administration).

From a financial standpoint, Amtrak also showed an improvement, although a black number on the bottom line was still in the "if ever" category. For the fiscal year, Amtrak, with a 22% gain in revenues, posted a revenue-to-expense ratio of 41.5%, three points better than the 38.5% recorded in 1978. ■

Review of 1979

Car and locomotive orders

1979 FREIGHT-TRAIN CAR ORDERS

Purchaser	No.	Type	Capacity (tons)	Order Date	Delivery Date	Builder
Apalachicola Northern	30	Woodchip hopper	100	Dec.	1980	Greenville
Arthur Farmer Grain Elevator Co.	15	Cov. hopper	100	Sept.	—	FMC
Ashley, Drew & Northern	100	Woodchip hopper	100	Jan.	Mar. '80	Thrall
Atchison, Topeka & Santa Fe	150	Box	100	—	July '80	FMC
	358	Box	100	—	Mar.-Apr. '80	PACCAR
	400	Box	100	—	July-Sept. '80	Co. shops
	450	Crosshopper	100	—	Feb. '80	Greenville
	440	Cov. hopper	100	—	July '80	Pullman Std.
	4	Flat	250	—	Feb. '80	Maxson
	43	Artic. flat	—	—	Apr. '80	Co. shops
	50	Trilevel rack	—	—	Jan. 80	Whitehead & Kales
	50	Caboose	—	—	Mid '81	International Car
	20	Airdump	70	—	May '80	Difco
	100	Tank	100	—	Oct. '80	Trinity Ind.
Bechtel	23	Gondola	105	May	Jan. '80	Berwick
Bessemer & Lake Erie	200	Gondola	100	Aug.	May '80	ACF
Boston & Maine	200	Box	70	Aug.	Sept.	PACCAR
	100	Box	70	Feb.	Mar.	Pullman Std.
	25	Box	100	Aug.	Oct.	FMC
Brae	100	Box	70	May	Apr. '80	Berwick
	85	Flat	100	June	1980	Bethlehem
Bucyrus-Erie	20	Cov. hopper	100	Oct.	Nov.	Greenville
Burlington Northern	650	Hopper	100	Jan.-Aug.	Apr.-May '80	Bethlehem
	66	Ins. box	100	Aug.	Jan.-Mar. '80	PACCAR
	75	Caboose	100	Aug.	Jan. '80	International Car
	1,100	Cov. hopper	100	Aug.-Dec.	Jan.-Mar. '80	FMC
	400	Box	70	Aug.	Apr.-May '80	PACCAR
	100	Woodchip gondola	100	Aug.	July-Sept. '80	Thrall
	50	Tank	100	July	Feb.-May '81	ACF
	10	Airdump	100	Dec.	Aug. '80	Difco
Chessie	750	Cov. hopper	100	May	Mar.-May '80	ACF
	160	Caboose	—	Dec.	1980	FGE
	312	Enc. Trilevel rack	—	July	Jan.-Mar. '80	Whitehead & Kales
Chicago & North Western	300	Gondola	100	Aug.	Apr.-June '80	Evans
	350	Cov. hopper	100	Nov.	Apr.-June '82	ACF
Chicago, Rock Island & Pacific	550	Box	70	—	Aug.-Sept. '79	Pullman Std.
Chicago Freight Car Leasing Co.	800	Cov. hopper	100	Mar.-June	Oct. '80-June '82	Pullman Std.
Clinchfield	9	Trilevel auto rack	60	Jan.	Nov. '79-Mar. '80	Whitehead & Kales
	2	Bilevel auto rack	60	Aug.	Nov.	Whitehead & Kales
	4	Air side dump	100	Aug.	Aug. '80	Difco
	100	Cov. hopper	100	Oct.	Nov. '80	Pullman Std.
	150	Box	70	Nov.	Dec. '80	Pullman Std.
Conrail	330	Hopper	100	Oct.	Nov.	Bethlehem
	300	Coil steel	100	Sept.	May '80	Portec
	220	Triple hopper	100	Sept.	Nov. '79-Jan. '80	Greenville
	335	Box	100	1979	1980	FGE
CPS Board of San Antonio	6	Coal hopper	100	July	Jan. '80	Thrall
Delaware & Hudson	200	Gondola	100	Sept.	Jan.-Feb. '80	Bethlehem
	100	Coal hopper	100	Dec.	Mar. '80	Trinity Ind.
Denver & Rio Grande Western	300	Hopper	100	Sept.	July '80	—
	50	Gondola	100	Sept.	June '80	—
Elgin, Joliet & Eastern	300	Gondola	100	Aug.	May '80	ACF
Emons	500	Gondola	100	May	Jan.-Mar. '80	Berwick
Federal Paper Bd.	3	Woodchip gondola	100	Jan.	July	Greenville
Florida East Coast	54	Trilevel auto rack	90	Jan.	Dec.	Whitehead & Kales
	24	Ins. box	70	Oct.	Dec.	FGE
	4	Box	70	Nov.	Nov.	FGE
Fort Worth & Denver	100	Cov. hopper	100	Sept.	—	FMC
GATX	230	Hopper	100	Jan.	1980	Bethlehem
Genesee & Wyoming	700	Gondola	100	1979	Dec. '79	Pullman Std.
Georgia	75	Box	70	Nov.	Dec. '80	Pullman Std.
Georgia Pacific	200	Woodchip hopper	100	Jan.	Jan. '80	Thrall
Grand Trunk Western	100	Cov. hopper	100	Oct.	1980	Greenville
	100	Cov. hopper	100	—	1981	Pullman Std.
Granite Rock Co.	45	Twin hopper	100	Jan.	Oct.	Greenville
Great American	100	Gondola	100	Dec.	—	Bethlehem
Illinois Central Gulf	200	Woodchip hopper	70	Jan.	Nov.-Dec.	Co. shops
	300	Cov. hopper	100	Feb.	Jan.-Mar. '80	Pullman Std.
	350	Bulkhead flat	100	Mar.	Oct.-Dec. '80	Portec
	800	Coal hopper	100	Aug.	May-Aug. '80	Co. shops
	150	Gondola	100	Aug.	Sept.-Oct. '80	Co. shops
	100	Pulpwood	70	Oct.	Nov.-Dec. '80	Co. shops
Illinois Terminal	200	Box	70	—	Oct.	Pullman Std.
Interpool	100	Box	70	June	—	FMC
Kansas City Southern	100	Triple hopper	100	May	1980	Greenville
	100	Gondola	100	May	1980	Greenville
	100	Cov. hopper	100	Mar.	Aug. '80	Thrall
Kennecott Copper	18	Airdump	100	July-Sept.	Jan.-Mar. '80	Difco
Lake Erie Franklin & Clarion	100	Triple hopper	100	July	1980	Greenville
Leasing Co.	6,350	Various	—	1979	—	—
Louisville & Nashville	35	HiRoof box	70	May	Aug.-Sept. '80	International Car
	144	Trilevel auto racks	60	Aug.	Feb.-Mar. '80	Whitehead & Kales
	1,000	Hopper	100	Sept.	Mar.-June '80	Bethlehem
	100	Box	100	Oct.	Sept. '80	Pullman Std.
	950	Cov. hopper	100	Oct.	Nov.-Dec. '80	Pullman Std.
	1,300	Hopper	100	Dec.	Oct. '80-Mar. '81	Chessie Sys.
Maine Central	500	Box	75	Jan.	Jan.-Mar. '81	FMC
	2	Caboose	—	Jan.	Jan.-Mar. '80	International Car
Missouri Pacific	1,000	Cov. hopper	100	Feb.	Jan. '80	ACF
	500	Hopper	100	Jan.	June '80	Bethlehem
	100	Caboose	50	Sept.	July '80	Co. shops
	47	Box	70	Dec.	July '80	PACCAR
	200	Woodchip hopper	100	June	Nov. '80	Greenville
	28	Box	100	Dec.	July '80	FGE
Missouri Pacific Public Service Co.	20	Flat	70	Feb.	Oct.	Bethlehem
New Hope & Ivyland	200	Box	100	Jan.-Aug.	—	FMC
Norfolk & Western	12	Side dump	100	Jan.	Aug.-Sept.	Difco
	300	Cov. hopper	100	May	Mar.-May '80	Portec
	164	Hopper	100	June	Sept.-Oct.	Co. shops
	278	HiCube box	100	Sept.	Jan.-Sept. '81	Greenville
	228	Trilevel rack	70	Oct.	Apr.-July '80	Whitehead & Kales
	23	Bilevel rack	70	Oct.	July '80	Whitehead & Kales
North American	5,000	Cov. hopper	100	July	1979-80	Ingalls Shipbuilding
	500	Cov. hopper	100	Feb.	Feb.-Apr. '80	Hawker Siddeley
Oklahoma Gas & Electric	130	Coal hopper	100	Jan.	Aug.	Thrall

Editor's note: Information on freight-car orders placed in 1979 was provided to *Railway Age* by both purchasers and builders. Some companies were unable to supply information for competitive, financial, or other reasons. There may be some duplications due to inconsistent reporting methods.

Purchaser	No.	Type	Capacity (tons)	Order Date	Delivery Date	Builder
Operating Lease Services	100	Box	70	Feb.	1981	Berwick
PLM, Inc.	440	Gondola	100	1979	Oct.-Dec. '80	Bethlehem
	710	Cov. hopper	—	1979	Jan.-Aug. '80	Portec
	115	RD hopper	—	1979	Oct.-Dec. '80	Ortner
	10,000	Cov. hopper	100	Sept.	Feb.'80-Dec.'89	Ry. Services Corp.
Patapsco & Back Rivers	25	Gondola	100	Aug.	1980	Bethlehem
Philadelphia, Bethlehem & New England	200	Gondola	70	May	1980	Bethlehem
Pittsburg & Shawmut	200	Hopper	100	June	Sept. '80	Bethlehem
Pittsburgh & Lake Erie	500	Triple hopper	100	Sept.	Oct.'79-Jan.'80	Greenville
	800	Gondola	100	Dec.	1980	Greenville
Railbox Co.	700	Box	70	Apr.-June	July-Dec. '80	PACCAR
	1,750	Box	70	May-June	Apr.-Sept. '80	Pullman Std.
	500	Box	70	May	Aug.-Sept.'80	ACF
	500	Box	70	Feb.	Apr.-June '80	Berwick
	1,500	Box	70	Jan.-Apr.	Jan.-Sept. '80	FMC
Railpool	200	Box	70	Feb.	Apr.-May	Berwick
Reserve Mining	10	Airdump	100	Dec.	Apr.-June '80	Difco
Rex Rys.	200	Box	70	Mar.	Sept.	FMC
	100	Cov. hopper	100	Jan.	Jan. '80	FMC
	400	Box	70	July	Oct.	Pullman Std.
	150	Cov. hopper	100	Sept.	Aug. '80	Pullman Std.
	800	Cov. hopper	100	Nov.	July '80	Marine Ind.
Richmond, Fredericksburg & Potomac	100	Box	70	May	Oct.-Dec.	Pullman Std.
	100	Box	100	May	Oct.-Dec. '81	FMC
Sandersville	200	Box	70	—	Sept.-Oct.	Pullman Std.
Shamrock Coal	26	Gondola	105	June	Dec.	Berwick
St. Louis Refrigerator Car Co.	250	RBL refrig.	100	Mar.	July-Sept. '80	PACCAR
St. Louis-San Francisco	225	Cov. hopper	100	Nov.	Jan.-June '80	Co. shops
	300	Cov. hopper	100	Nov.	July '80	Pullman Std.
	10	Gondola	70	Sept.	July-Dec. '80	Difco
St. Marys RR	60	Flat	100	Jan.	Dec.	Bethlehem
	555	Box	70	1979	1979	ACF
	400	Box	70	Feb.	Dec.'79-Jan.'80	Pullman Std.
Seaboard Coast Line	199	Bilevel auto rack	60	Jan.-Aug.	Oct.-Dec.	Whitehead & Kales
	59	Trilevel auto rack	60	Jan.-Aug.	Nov.'79-Mar.'80	Whitehead & Kales
	200	Box	100	Oct.	Aug.-Sept.'80	Pullman Std.
	950	Cov. hopper	100	Oct.	May-Nov.'80	Pullman Std.
	800	Box	70	Nov.	Aug.-Oct.'80	Pullman Std.
	30	Tank	100	Nov.	Sept.-Oct.'80	North American
Soo Line	575	Cov. hopper	100	—	Dec.'79-Feb.'80	Pullman Std.
	100	Gondola	100	—	Feb. '80	Thrall
	50	Flat	70	—	Jan. '80	Thrall
	40	Bulkhead flat	100	—	Dec.	Thrall
	113	Box	70	—	Apr.-July	Co. shops
Southern	12	Caboose	50	Apr.	Dec.	FGE
	400	Ins. box	70	May	Dec.'79-Mar.'80	FGE
	500	Box	70	May	Feb. '80	Pullman Std.
	400	Gondola	70	Apr.	Feb. '80	Greenville
	100	Cov. coil	100	June	Oct. '80	Greenville
	500	Cov. hopper	100	May	July '80	Pullman Std.
	150	Woodchip hopper	100	May	June '80	Greenville
	800	Pulpwood flat	70	Apr.	Mar. '80	Greenville
	150	Woodchip gondola	100	Feb.	Apr. '80	Ortner
	120	Hopper	100	Feb.	July 80	Ortner
Southern Pacific and St. Louis Southwestern	550	Box	100	May	Apr.-Dec.'80	PACCAR
	250	Cov. hopper	100	May	July-Aug.'80	ACF
Southern Pacific and St. Louis Southwestern *(Cont.)*	75	Caboose	50	May	Feb.-May '80	International Car
	200	Flat	70	Aug.	Oct.-Nov.	ACF
	100	Gondola	100	Apr.	Feb.-Mar.'80	Greenville
Thayer, Ringoen & Macdonald	500	Gondola	100	May	1980	Greenville
Trailer Train Co.	2,400	Flat intermodal	70	Jan.-June	Dec.'79-Dec.'80	Bethlehem
	350	Bulkhead flat	100	June	July-Sept. '80	Bethlehem
	400	Flat intermodal	70	Aug.	Mar. '80	ACF
	450	Bulkhead flat	100	June	Oct.-Dec. '80	Thrall
	2,650	Flat intermodal	70	June-Sept.	Oct.'79-Sept.'80	Pullman Std.
	350	Auto rack flat	70	Aug.-Sept.	Feb.-Sept. '80	Pullman Std.
Union Pacific	400	Box	100	Aug.-Nov.	Oct.'80-Mar.'81	PACCAR
	900	Cov. hopper	100	Sept.	Oct.-Dec.'80	ACF
	900	Cov. hopper	100	Sept.	Oct.-Dec.'80	Pullman Std.
	100	Caboose	70	Dec.	Jan.-Mar.'81	International Car
	1,200	Hopper	100	July	Feb.-Oct.'80	Co. shops
United Equipment Leasing Assn.	200	Tank	100	Jan.-Sept.	Sept.'79-Sept.'80	Evans
Upper Merion & Plymouth	300	Box	70	Dec.	Jan. '80	Pullman Std.
U.S. Leasing Intl. and subsidiaries	1,000	Cov. hopper	100	Jan.-Nov.	Feb. '80	—
	350	Tank	100	Feb.-June	July'80-Oct.'81	—
	200	Gondola	100	Aug.	Apr.-May '80	—
	100	Flat	70	Aug.	Jan.-Mar.'81	—
	50	Hopper	100	Oct.	Apr.-May '80	—
	100	RBL refrig.	70	Nov.	Apr.-May '81	—
U.S. Ry. Leasing	400	Tank	100	Mar.-July	Nov.'79-June'80	Evans
	1,700	Box	70	Apr.-June	Nov.'79-Apr.'80	Evans
	1,550	Cov. hopper	100	Apr.-Dec.	Feb.-Nov. '80	Evans
	1,000	Gondola	100	June-Oct.	May-Dec. '80	Evans
U.S. Steel	58	Airdump	100	1979	Jan.-Mar. '80	Difco
Various industrial	1,575	Box	70	Jan.-Aug.	—	FMC
	150	Box	100	Apr.	—	FMC
	1,700	Cov. hopper	100	May-Dec.	—	FMC
	1,775	Cov. hopper	100	1979	1979	Pullman Std.
	4,026	Cov. hopper	100	1979	1980	Pullman Std.
	1,761	Cov. hopper	100	1979	1981	Pullman Std.
	615	Hopper	100	1979	1979	Pullman Std.
	200	Hopper	100	1979	1980	Pullman Std.
	400	Box	70	1979	1979	Pullman Std.
	500	Box	70	1979	1981	Pullman Std.
	7,760	Cov. hopper	100	1979	—	ACF
	100	Flat	70	1979	—	ACF
	1,851	Gondola	100	1979	—	ACF
	2,663	Tank	199	1979	—	ACF
	500	Cov. hopper	100	March	July '80	Portec
	3,010	Tank	—	1979	—	Various
	360	Gondola	100	May	Apr.-May '80	Berwick
	1,010	Box	70	May	July-Dec.'80	Berwick
	3,600	Various	—	1979	—	Name withheld
	1,154	Cov. hopper	100	Jan.-July	Mar.'79-June'81	Thrall
	1,000	Gondola	100	Jan.-Dec.	Mar.-May'80	Thrall
	50	Woodchip hopper	100	July	May '80	Thrall
	8	Cov. hopper	70	Mar.	Jan.'80	Thrall
	1,000	Gondola	100	Jan.	July '80	Thrall
	15	Box	70	1979	1980	FGE
	200	Flat	100	May	1980	Bethlehem
WCTU Ry	300	Box	70	Apr.	Feb.-Mar.'80	Berwick
	300	Box	70	1979	1980	Pullman Std.
Western Pacific	22	Bilevel	70	May	Nov.	Whitehead & Kales
	50	Cov. hopper	100	Feb.	Feb. '80	FMC
	6	Caboose	50	July	Apr.'80	International Car

Purchaser	No.	Type	Capacity (tons)	Order Date	Delivery Date	Builder
Wisconsin Electric	253	Gondola	105	Feb.	Dec.'79-Jan.'80	Berwick
Wisconsin Power	6	Coal hopper	100	Jan.	Aug.	Thrall
XTRA	200	Hopper	100	1979	1979	Trinity
	500	Cov. hopper	100	1979	Jan.-Mar.'81	Portec
	1,100	Cov. hopper	100	1979	Oct.'79-Nov.'80	Richmond Tank Car
	100	Cov. hopper	100	1979	June '80	FMC

1979 FREIGHT-TRAIN CAR ORDERS—CANADA

Purchaser	No.	Type	Capacity (tons)	Order Date	Delivery Date	Builder
British Columbia	400	Box	70	July '78	June-Dec.	Evans
	500	Box	70	May '78	Mar.-May	National Steel
	645	Bulkhead flat	100	May	Apr.-Aug.'80	Marine Ind.
Canadian General Transit	600	Cov. hopper	100	Feb.-Oct.	Jan.'80-Feb.'81	Hawker Siddeley
Canadian Ministry of Transport	2,000	Cov. hopper	100	—	—	—
Canadian National	200	Box	70	Jan.	Dec.'79-Jan.'80	National Steel
	150	Flat	100	Jan.	Aug.-Dec.	Marine Ind.
	200	Bulkhead flat	100	Mar.	Mar.-Apr. '80	Marine Ind.
	130	Box	100	May	Jan.-Feb. '80	FGE
	1	Flat	250	June	May '80	Davie Shipbuilding Ltd.
	100	Box	70	June	Oct.-Dec. '80	International Car
	65	Cov. hopper	100	May	May-June '80	Marine Ind.
	50	Caboose	—	—	Oct.-Dec.	Company Shops
	1,000	Cov. hopper	100	Dec.	1981	Marine Ind.
Canadian Pacific	122	Box	70	Jan.	June-July	FGE
	54	Gondola	100	Jan.-June	Nov.-Dec.	Hawker Siddeley
	35	Caboose	—	June	Jan.-Mar.'80	Co. shops
	200	Newsprint box	70	June	May-June '80	National Steel
	250	Gondola	100	June	July-Sept. '80	National Steel
	325	Flat	100	July	Oct.'80-Mar.'81	Marine Ind.
Canadian Wheat Board	800	Cov. hopper	100	Jan.	Oct.'79-Jan.'80	Hawker Siddeley
	1,000	Cov. hopper	100	Jan.	—	National Steel
	200	Cov. hopper	100	Jan.	—	Marine Ind.
Procor Ltd.	402	Cov. hopper	100	Jan.	Jan.-Mar.'80	Marine Ind.
	200	Bulkhead flat	100	May	Mar. '80	Marine Ind.
	200	Gondola	100	Nov.	Sept. '80	National Steel
	50	XP Box	100	Nov.	Mar. '80	National Steel
	100	Cov. hopper	100	Nov.	Apr. '80	National Steel

1979 DOMESTIC LOCOMOTIVE ORDERS

Purchaser	No.	Type	Horsepower	Order date	Delivery date	Builder
Armco Steel	2	B-B	1,000	1979	—	EMD
Alton & Southern	1	B-B	1,500	July	1980	EMD
American Steel Foundries	2	B-B	1,000	1979	—	EMD
Amtrak	35	B-B	3,000	1979	—	EMD
Atchison, Topeka & Santa Fe	15	B-B	2,250	1979	Mar.'80	GE
	24	C-C	3,000	1979	Mar. '80	GE
	30	B-B	3,500	1979	Oct. '80	EMD
	10	B-B	2,300	1979	Apr. '80	EMD
	45	C-C	3,000	1979	Nov. '80	EMD
	16	B-B	3,600	1979	Oct.-Dec. '80	GE
Belt of Chicago	2	B-B	1,500	Feb.	Feb.'80	EMD
Burlington Northern	120	C-C	3,000	Jan.-Sept.	July'79-Sept.'80	GE
	5	B-B	2,000	Oct.	Aug. '80	EMD
	195	C-C	3,000	July-Sept.	1980	EMD
Champion Intl.	1	B-B	1,000	—	—	EMD
Chessie System	110	B-B	3,000	Mar.-July	Jan.'80-Mar.'81	EMD
	49	B-B	3,000	Feb.-July	Jan.'80-Mar.'81	GE
Chicago & North Western	35	B-B	2,000	Oct.	Nov.-Dec.	EMD
	50	B-B	3,500	May	June '80	EMD
Clinchfield	3	C-C	3,000	Sept.	July '80	EMD
Delaware & Hudson	6	B-B	2,000	Dec.	Mar.-Apr. '80	GE
Denver & Rio Grande Western	16	C-C	3,000	1979	Mar. '80	—
Florida East Coast	2	B-B	3,000	Mar.	1979	EMD
	4	B-B	2,000	Mar.	1979	EMD
Grand Trunk Western	20	B-B	2,000	1979	1979	EMD
	5	B-B	2,000	1979	1980	EMD
Green Bay & Western	5	C-C	—	1979	Dec.'79-Jan.'80	GE
Gulf Oil	1	B-B	1,500	1979	—	EMD
Houston Belt & Terminal	5	B-B	1,500	1979	—	EMD
Kansas City Southern	4	C-C	3,500	1979	—	EMD
	2	B-B	3,000	1979	—	EMD
Lake Erie, Franklin & Clarion	1	B-B	1,500	1979	—	EMD
Louisville & Nashville	26	C-C	3,000	Feb.	Aug.-Nov.	EMD
	32	C-C	3,000	Sept.	May-Aug.'80	EMD
	14	B-B	2,000	Mar.	July-Aug.	EMD
	8	C-C	3,000	Oct.	Aug. '80	GE
	17	B-B	3,000	Oct.	Apr. '80	EMD
	20	C-C	3,000	Jan.	Aug.-Sept.	GE
Mississippi Export RR	1	B-B	2,000	1979	—	EMD
Missouri-Kansas-Texas	10	C-C	3,000	Nov.	Oct. '80	EMD
Missouri Pacific	40	C-C	3,000	Apr.-June	Dec.'79-May'80	EMD
	80	B-B	2,000	June-Nov.	May-Nov. '80	EMD
	10	B-B	3,500	Nov.	Nov. '80	EMD
	40	B-B	2,250	July-Nov.	Dec.'79-June'80	GE
Norfolk & Western	25	C-C	3,000	July	Oct.-Dec.'80	EMD
RTA	18	B-B	3,000	1979	—	EMD
St. Louis-San Francisco	10	B-B	3,500	Sept.	July-Dec.'80	EMD
Seaboard Coast Line	21	B-B	2,000	Apr.-Oct.	Aug.'79-Aug.'80	EMD
	8	C-C	3,000	Oct.	June '80	EMD
	5	B-B	3,000	Oct.	July-Aug.'80	EMD
	17	B-B	3,000	Nov.	Mar.-June '80	GE
	10	C-C	3,000	Nov.	Mar.-Aug.'80	GE
Shamrock Coal Co.	8	C-C	3,000	1979	—	EMD
Soo Line	28	B-B	2,000	1979	May'79-Dec.'80	EMD
	12	C-C	3,000	Feb.-June	Dec.'79-June'80	EMD
Southern	70	C-C	3,500	Apr.	June '80	EMD
	6	B-B	2,600	Apr.	Nov. '80	EMD
	6	B-B	3,600	Sept.	Mar. '81	GE
	20	B-B	2,250	Sept.	Jan. '81	GE
Southern Pacific & St. Louis Southwestern	45	—	2,000	July	May-July '80	EMD
	110	—	3,000	July	Mar.-June '80	EMD
	15	—	2,250	Juy	June '80	GE
	30	—	3,000	July	Jan.-Apr.'80	GE
Texas Mexican	1	B-B	2,000	May	July-Dec.'80	EMD
Union Pacific	160	C-C	3,000	May-June	Oct.'79-Mar.'80	EMD
	40	C-C	3,000	Sept.	Jan.-Mar. '80	GE
Western Pacific	10	B-B	3,000	June	Apr.'80	EMD

1979 LOCOMOTIVE ORDERS—CANADA

Purchaser	No.	Type	Horsepower	Order date	Delivery date	Builder
British Columbia	10	C-C	3,000	Nov.	Oct.-Dec. '80	GM Diesel
Canadian National	16	B-B Booster	—	Mar.	Mar.-May '80	GM Diesel
	40	C-C	3,000	Apr.-June	Dec.'79-80	GM Diesel
Canadian Pacific	35	C-C	3,000	Mar.	Oct.-Nov.	GM Diesel
	75	C-C	3,000	Dec.	Oct.'80-Mar.'81	GM Diesel
New Zealand	10	C-C	1,500	May	Sept. '80	GM Diesel

1979 EXPORT LOCOMOTIVE ORDERS

Purchaser	No.	Type	Horsepower	Order date	Delivery date	Builder
Chihuahua al Pacifico	2	B-B	2,000	1979	—	EMD
Foster Yeoman Ltd. England	1	B-B	1,000	1979	—	EMD
Moroccan National Rys.	3	C-C	3,000	1979	—	EMD
National of Mexico	31	C-C	3,000	1979	—	EMD
	105	C-C	3,000	1979	Sept.'79-Sept.'80	EMD
Northern Ireland Rys.	2	C-C	2,250	1979	—	EMD
Petroleos Mexicanos	2	B-B	1,000	—	—	EMD
South African Ry.	24	B-B	1,100	Sept.	Jan.-Mar. '81	GE
Taiwan	3	C-C	4,200	Nov.	Oct.-Dec. '80	GE

January 28, 1980

RAILWAY AGE

Pullman Standard

Railroads in the '70s

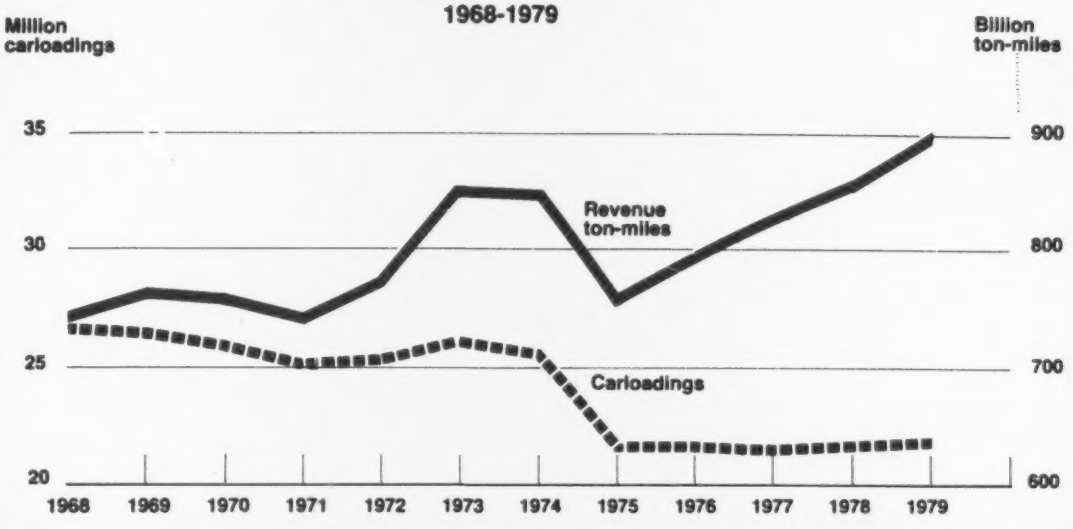
A statistical review

a

Traffic

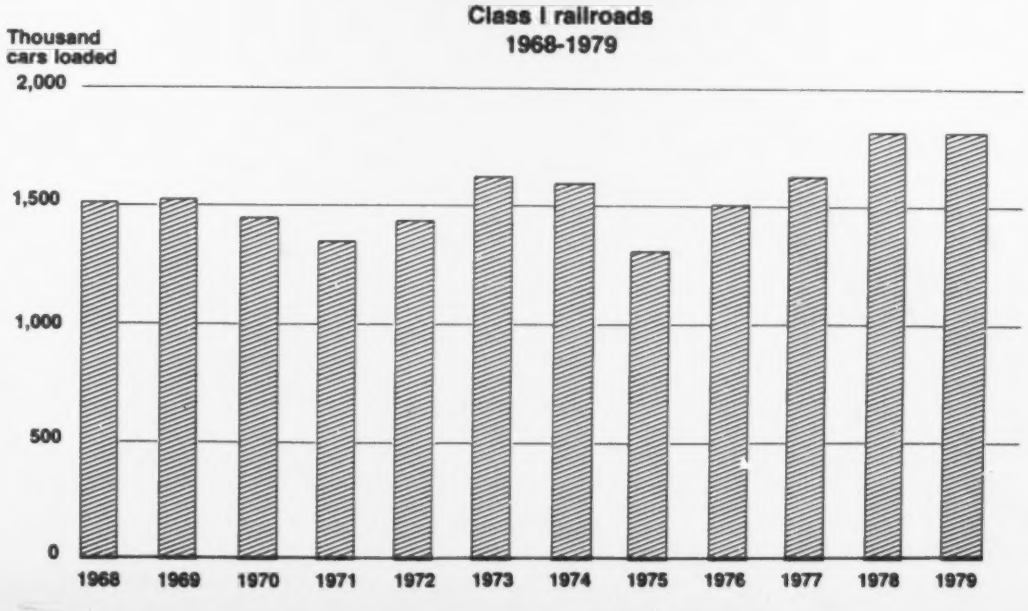
Freight traffic trends

Class I railroads
1968-1979



Revenue carloadings of T-O-F-C traffic

Class I railroads
1968-1979



b

Carloadings by commodities 1979 vs 1978

Commodity	1979	1978		Incr. or Decr. 1979 vs 1978 Cars	Percent
Grain	1,428,170	1,340,254	I	87,916	6.6%
Other farm products	222,713	243,543	D	20,830	8.6
Metallic ores	1,765,494	1,710,477	I	55,017	3.2
Coal	5,254,337	4,427,722	I	826,615	18.7
Crushed stone, gravel and sand	853,479	954,892	D	101,413	10.6
Nonmetallic minerals	783,067	763,137	I	19,930	2.6
Grain mill products	917,154	972,038	D	54,884	5.6
Food and kindred products	953,397	990,488	D	37,091	3.7
Primary forest products	1,054,916	1,086,117	D	31,201	2.9
Lumber and wood products except furniture	596,620	648,859	D	52,239	8.1
Pulp, paper and allied products	1,096,595	1,093,814	I	2,781	0.3
Chemicals and allied products	1,488,167	1,439,191	I	48,976	3.4
Petroleum products	335,578	358,307	D	22,729	6.3
Stone, clay and glass products	943,730	962,252	D	18,522	1.9
Coke	359,676	375,384	D	15,708	4.2
Metals and products	983,835	966,396	I	17,439	1.8
Motor vehicles and equipment	1,122,309	1,261,174	D	138,865	11.0
Waste and scrap materials	713,116	711,617	I	1,499	0.2
Forwarder and shipper association traffic	642,103	623,665	I	18,438	3.0
All other carloads	2,341,234	2,400,254	D	59,020	2.5
LCL traffic	20,834	25,896	D	5,062	19.5
Total cars loaded	**23,876,524**	**23,355,477**	I	**521,047**	2.2

Freight and passenger traffic 1968-1979

Year	Revenue carloadings (thousands)	Piggyback carloadings (thousands)	Revenue ton-miles (millions)	Revenue passenger-miles (millions)
1968	28,253	1,510	744,023	13,110
1969	28,237	1,540	767,841	12,159
1970	27,160	1,450	764,809	10,740
1971	25,266	1,356	739,743	8,833
1972	26,105	1,448	776,746	8,558
1973	27,338	1,631	851,809	9,295
1974	26,184	1,610	850,961	10,333
1975	23,218	1,308	754,252	9,934
1976	23,457	1,506	794,059	10,304
1977	23,173	1,689	826,292	10,293
1978	23,355	1,841	858,105	10,222
1979	23,877	1,858	e902,000	e11,600

e Estimated

Note: Piggyback carloadings shown above include mail and express. Revenue passenger-miles include National Railroad Passenger Corp. (Amtrak) beginning with year 1971 and Auto-Train Corp. for years 1972-77.

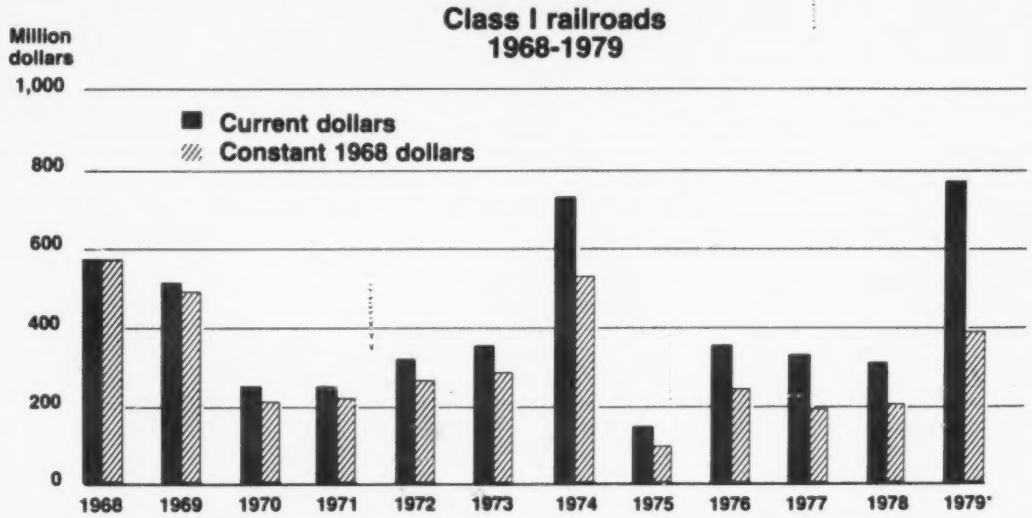
Methods of shipping motor vehicles from factories 1968-1979

Year	Vehicles shipped	Highway %	Railroad %	Boat %
1968	10,718,000	50.8	49.0	0.2
1969	10,147,000	48.2	51.7	0.1
1970	8,239,000	45.3	54.7	—
1971	10,638,000	47.5	52.5	—
1972	11,270,000	47.8	52.2	—
1973	12,637,000	48.0	52.0	—
1974	10,058,000	44.8	55.2	—
1975	8,985,000	46.4	53.6	—
1976	11,477,000	48.5	51.5	—
1977	12,639,000	49.3	50.7	—
1978	12,871,000	49.4	50.6	—
1979 (9 mos.)	8,921,000	50.5	49.5	—

Source: Motor Vehicle Manufacturers Association of the United States, except column 2 and 3 for 9 mos. 1979 estimated by AAR.

Earnings

Net income
Class I railroads 1968-1979



(Ordinary income before extraordinary and prior period charges and credits.)

*12 months ended Sept. 30

Condensed income account 1968, 1978, 1979

	1968 (millions)	1978 (millions)	12 mos. to 9/30/79 (millions)
Total operating revenues	$10,855	$21,721	$24,719
Total operating expenses[1]	10,170	21,043	23,584
Income taxes on ordinary income[2]	66	148	228
Provision for deferred taxes	—	93	145
Net railway operating income	678	427	785
Net ordinary income	569	307	775
Net income in constant 1968 dollars	569	202	395

Note: Data based on the new Uniform System of Accounts (U.S.O.A.), effective Jan. 1, 1978.
1. Operating expenses include rents and taxes other than income taxes.
2. Data for 1978 and 1979 include a small amount of state taxes.

Operating revenues 1968, 1978, 1979

	1968 (millions)	1978 (millions)	12 mos. to 9/30/79 (millions)
Freight	$ 9,989	$20,236	$22,937
Passenger	444	356	380
All other	421	1,129	1,402
Total	**$10,855**	**$21,721**	**$24,719**

Note: Mail and express included in freight revenue.

New and rebuilt equipment installed 1968-1979

Year	Freight cars	Passenger-train cars	Diesel-electric units
1968	68,568	103	982
1969	75,661	265	1,241
1970	75,136	318	1,093
1971	60,633	281	1,276
1972	49,983	347	1,577
1973	59,170	92	1,339
1974	67,409	100	1,282
1975	73,992	272	810
1976	53,630	358	568
1977	53,817	158	996
1978	70,458	44	1,378
1979 est	90,000	n.a.	1,900

n.a. Not available

Note: Freight-car installations include cars of all railroads and private car lines. Passenger-train car and diesel-electric unit installations include Amtrak and Auto-Train beginning in 1972.

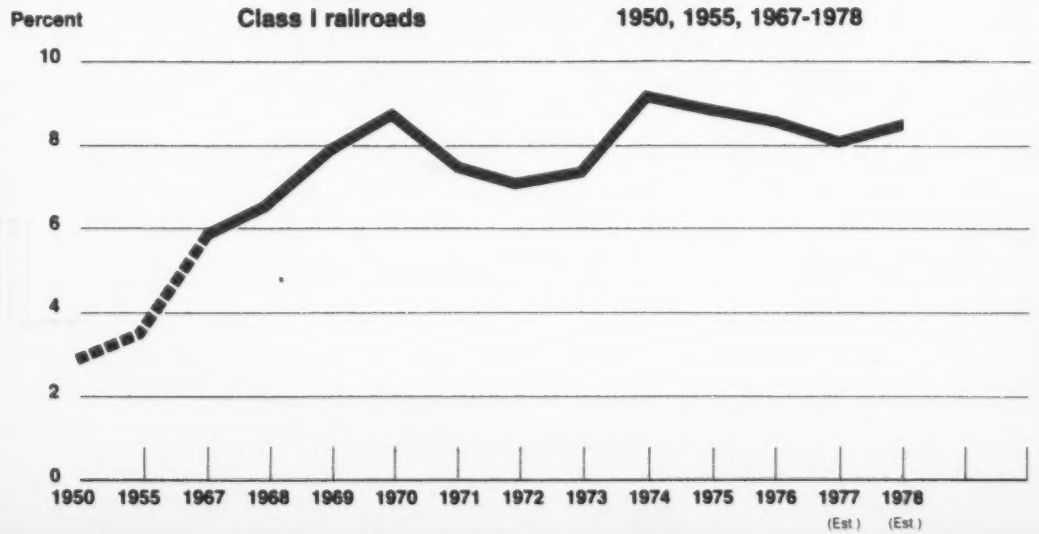
Inventory of equipment 1968-1979

December 31	Freight cars*	Passenger cars (incl. Pullman)	Head-end passenger-train cars	Diesel locomotive units	Other locomotive units
1968	1,800,375	8,601	6,583	27,017	359
1969	1,791,736	8,343	4,083	26,174	319
1970	1,784,181	7,953	3,224	26,796	290
1971	1,762,135	6,804	1,909	26,897	292
1972	1,716,937	6,541	1,048	27,070	294
1973	1,710,659	6,270	919	27,550	250
1974	1,720,573	6,077	771	27,857	227
1975	1,723,605	5,834	637	27,846	225
1976	1,699,027	4,879	599	27,368	229
1977	1,666,533	4,907	605	27,450	217
1978	1,652,774	3,566	760	27,241	216
1979 est.	1,694,000	n.a.	n.a.	27,700	216

*All cars, railroad and private.
n.a. Not available.

Note: Figures shown for passenger equipment include National Railroad Passenger Corp. (Amtrak) beginning with 1971. Number of locomotives shown includes Amtrak beginning with 1972 and Auto-Train Corp. for years 1972-77. Beginning with the year 1972, the number of freight cars is based on a revised series. (TRAIN).

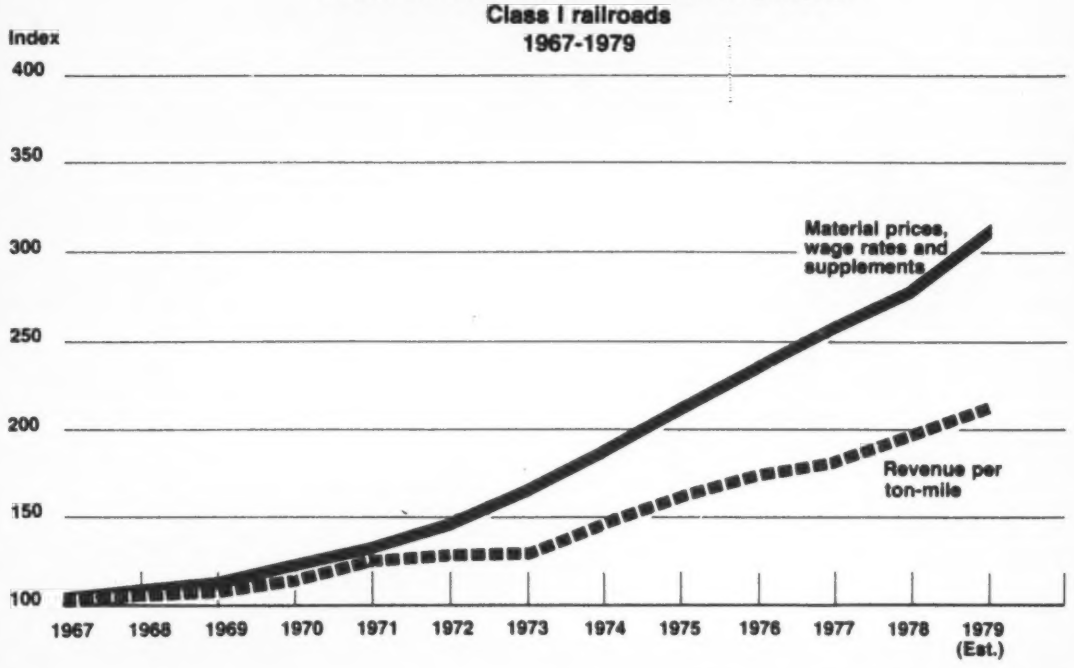
Average interest rates on equipment obligations issued



Costs

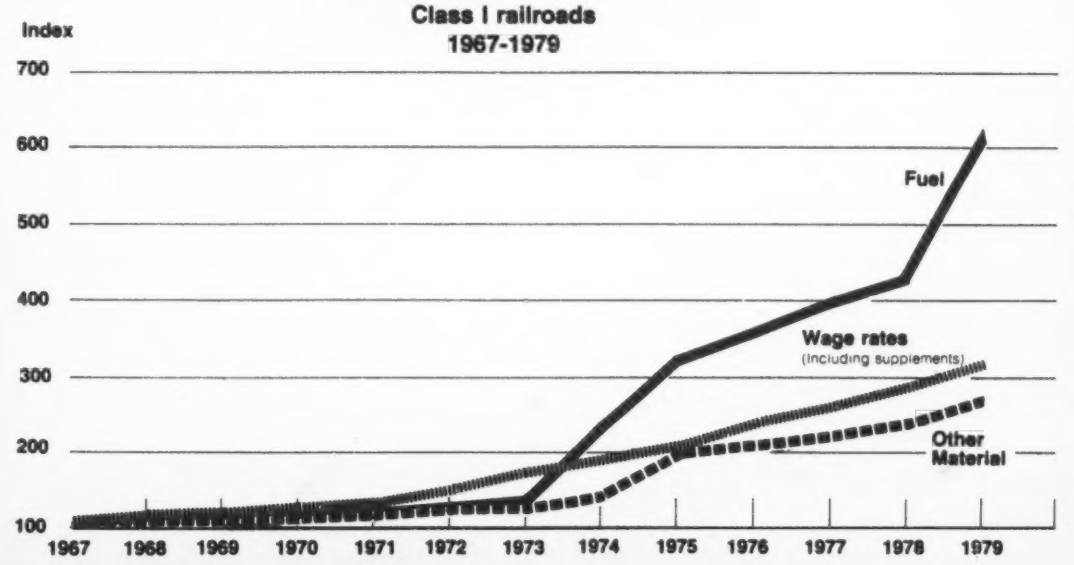
Revenue and cost trends

Class I railroads
1967-1979



Railroad cost trends

Class I railroads
1967-1979



Prices and revenue averages—1967-1979

Year	Consumer price index (1967 = 100)	Producer price index for railroad equipment (1967 = 100)	Revenue per ton-mile (cents)	Revenue per passenger-mile (cents)
1967	100.0	100.0	1.269	3.195
1968	104.2	103.1	1.310	3.389
1969	109.8	108.8	1.347	3.608
1970	116.3	115.1	1.428	3.914
1971	121.3	121.1	1.593	4.306
1972	125.3	128.7	1.618	4.747
1973	133.1	134.7	1.617	4.756
1974	147.7	163.8	1.853	5.207
1975	161.2	201.2	2.041	5.396
1976	170.5	216.7	2.191	5.744
1977	181.5	233.5	2.286	5.916
1978	195.3	252.7	2.462	5.968
1979 est.	217.5	276.5	2.700	6.050

Note: Revenue per passenger-mile figures include Amtrak statistics beginning with 1971 and include Auto-Train for years 1972-77.

Trend in railroad fuel prices[a]

(cents per gallon)

Year	U.S.	East	South	West
1968	9.29	9.59	10.42	8.81
1969	9.58	9.84	10.44	9.23
1970	9.92	10.13	10.62	9.68
1971	10.29	10.70	10.98	9.92
1972	10.52	10.92	11.27	10.14
1973	12.26	12.74	12.94	11.84
1974	24.43	25.19	25.06	24.01
1975	28.91	30.05	29.75	28.09
1976	31.44	32.55	32.31	30.67
1977	34.99	36.81	36.18	33.77
1978	36.54	38.48	37.50	35.36
1979	72.68	72.18	70.05	73.69

[a] Yearly averages based on AAR Fuel Index. December 3, 1979 prices based on Ex Parte No. 311 questionnaire responses from all Class I railroads.

Annual rates of inflation 1978-1979

(1967 = 100)

Month	Producer price index	Consumer price index	Index of railroad material prices and fuel
1978			
April	206.4	191.4	279.5
May	207.9	193.3	—
June	209.4	195.3	—
July	210.6	196.7	281.5
August	210.4	197.7	—
September	212.3	199.1	—
October	214.9	200.7	286.8
November	215.7	201.8	—
December	217.4	202.9	—
1979			
January	220.8	204.7	296.3
February	224.1	207.1	—
March	226.7	209.3	—
April	230.0	211.8	316.9
May	232.0	214.3	—
June	233.5	216.9	—
July	236.6	219.4	367.3
August	238.1	221.5	—
September	241.7	223.7	—
October	245.2	225.6	404.7
Annualized rate of inflation 10/78-10/79	14.1%	12.4%	41.1%

Compensation

Index of wage rates and material prices 1967-1979

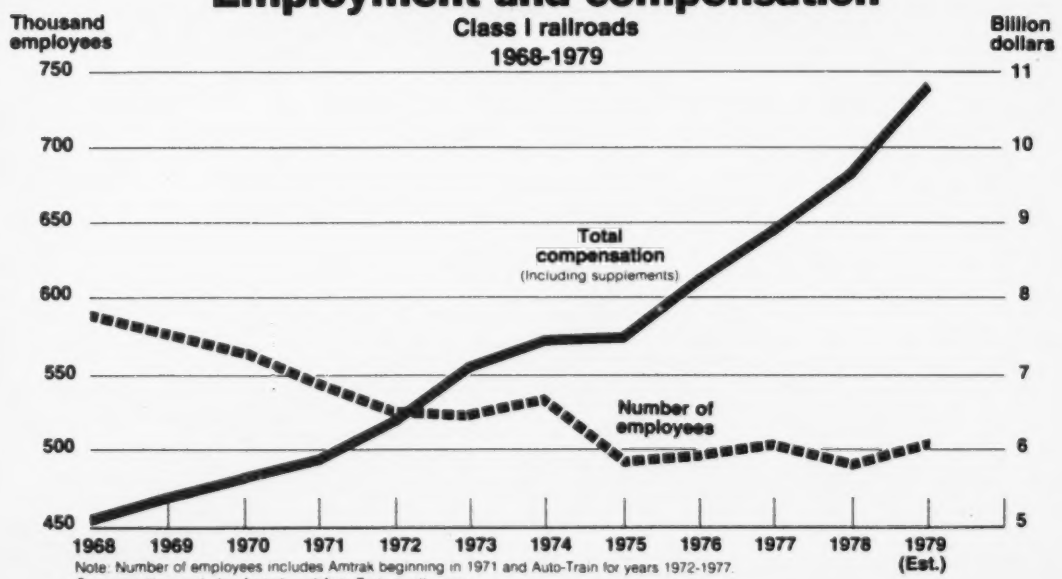
(Average 1967 = 100)

Year	Wage index	Wage sales and supplements	Fuel	Price index other material	Total material	Index of wage rates and prices	Wage rates and prices including supplements
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	105.1	106.3	103.5	102.6	102.7	104.7	105.7
1969.....	112.2	113.6	106.7	105.5	105.8	110.9	112.3
1970.....	122.7*	125.6*	110.5	109.4	109.7	120.2*	123.0*
1971.....	136.8*	139.4*	114.6	113.5	113.7	131.2*	133.7*
1972.....	149.5	153.4	117.1	118.7	118.1	141.8	145.6
1973.....	164.4	173.9	136.5	122.9	126.7	155.2	163.5
1974.....	173.4	189.1	272.0	142.1	178.9	174.7	186.8
1975.....	190.8*	207.1*	321.9	190.2	227.2	202.2*	212.6*
1976.....	210.7	232.0	350.1	203.2	244.5	221.3	235.4
1977.....	227.3	251.6	389.6	217.2	265.3	239.2	255.4
1978.....	250.0	276.5	406.9	230.6	279.9	259.4	277.4
1979 (prel).	275.1	302.8	606.7	252.5	348.0	297.9	315.2

*Reflects inclusion of retroactive wage increases.

Employment and compensation

Class I railroads
1968-1979



Note: Number of employees includes Amtrak beginning in 1971 and Auto-Train for years 1972-1977. Compensation excludes Amtrak and Auto-Train in all years.

Employees and their compensation 1968-1979

Year	Number of employees 1	Number of employees 2	Total payroll (1000s)2	Average annual earnings per employee1	Average straight-time Hourly rate2	Hourly earnings2
1968.....	—	590,536	$5,110,636	$ 8,654	$3.47	$3.74
1969.....	—	578,227	5,382,754	9,274	3.70	4.00
1970.....	—	566,282	5,711,280*	10,086*	4.05*	4.35*
1971.....	544,497	544,333	5,999,968*	11,023*	4.52*	4.84*
1972.....	527,235	526,061	6,424,920	12,213	4.94	5.32
1973.....	524,422	520,153	7,083,338	13,627	5.43	5.83
1974.....	533,277	525,177	7,475,834	14,235	5.72	6.16
1975.....	494,348	487,769	7,474,000*	15,324*	6.30*	6.77*
1976.....	496,491	482,882	8,278,400	17,144	6.96	7.49
1977.....	501,389	482,731	8,939,400	18,518	7.51	8.15
1978.....	491,254	471,519	9,700,600	20,573	8.25	8.85
1979 est....	505,300	485,600	10,975,000	22,600	9.08	9.76

* Adjusted to include retroactive increases.

1 Includes Amtrak beginning in 1971 and Auto-Train for years 1972-77.

2 Excludes Amtrak and Auto-Train.

Market

CARLOADINGS

Loadings of revenue freight in the week ended Jan. 5 totaled 368,685 cars, according to the Association of American Railroads. This was an increase of 32,775 cars, or 9.8%, compared with the corresponding week last year. Ton-miles generated by carloadings in the week ended Jan. 5 are estimated at 14.4 billion, an increase of 13.1% above the corresponding week of 1979. Both weeks included the New Year's Day holiday.

PIGGYBACK LOADINGS

U.S. piggyback loadings for the holiday week ended Dec. 29, 1979, totaled 22,614 cars (15.3% below the corresponding holiday week of 1978) and 39,150 trailers or containers (down 13.2% from 1978). Piggyback traffic on Class I U.S. roads in 1979 established a record for the third consecutive year. Cumulative volume for the year is 1,857,705 (up 0.9% from 1978). Trailers and containers carried reached 3,278,163 (3.2% above 1978).

REVENUE FREIGHT CARLOADINGS

Commodity	Jan. 5 week	Dec. 29 week	Dec. 22 week
Grain	30,884	20,628	33,921
Farm products	3,555	2,648	4,283
Metallic ores	26,476	25,776	29,229
Coal	87,807	73,789	111,205
Crushed stone, gravel & sand	10,554	7,879	12,225
Nonmetallic minerals	14,449	12,821	14,894
Grain mill products	15,146	13,432	18,571
Food and kindred products	14,456	13,088	19,774
Primary forest products	17,261	10,874	20,631
Lumber & wood products (except furniture)	6,127	5,641	11,547
Pulp, paper & allied products	18,781	13,436	22,515
Chemicals & allied products	26,731	23,581	29,154
Petroleum products	5,922	4,870	6,264
Stone, clay & glass products	13,598	11,963	16,124
Coke	5,508	5,881	5,595
Metals & products	15,654	12,789	16,379
Motor vehicles & equipment	9,415	6,934	16,789
Waste & scrap materials	9,149	7,581	13,351
Forwarder & shipping assn. traffic	7,212	7,110	12,049
All other carloads	29,859	25,293	44,852
LCL traffic	141	142	215
Total cars loaded	**368,685**	**306,156**	**459,567**
	1980	**1979**	
Estimated revenue ton-miles (billions)	**14.4**	**12.7**	

CANADIAN CARLOADINGS

Canadian railway revenue freight loaded in the seven-day period ended Dec. 7, 1979, totaled 7.0 million tons (up 5.2% from 1978). Cars loaded totaled 102,908 (down 0.7% from 1978). Cumulative loadings for 1979 were up to 242.6 million tons (up 9.3% from 1978).

• *Algerian State Railways.*—Awarded a $13-million contract to Union Switch & Signal's WABCO Westinghouse Signaling Division, Torino, Italy, for the supply of interlockings, automatic block signaling equipment, and highway crossing protection equipment for 50 miles of line.

• *Amtrak.*—Specifications for a new series of single-level passenger cars are being sent to manufacturers in the U.S., Canada, Germany, Britain, Switzerland, France, Japan, and Italy. An initial order of 200 85-foot cars is planned. Amtrak has not specified the carbody material to be used or the exterior design of the cars. Bids will be sought on a full line of equipment—coaches, lounges, diners, sleepers, slumber coaches, baggage, and baggage/dormitory cars.

• *Delaware & Hudson.*—1980 equipment program calls for acquisition of 200 52-foot, 100-ton mill gondolas; 100 100-ton coal hoppers; and six remanufactured ALCO 420 locomotives—all for delivery in March and April and valued at a total of $21 million. D&H has also authorized acquisition of 150 65-foot gondolas for delivery later in 1980.

• *Family Lines.*—Announced the completion of a new $7.5-million locomotive servicing facility adjacent to Rice Yard at Waycross, Ga. Routine service will be performed for approximately 125 locomotives daily, including refueling, lubricating, inspecting, cleaning, testing, and replenishing on-board supplies.

• *Grand Trunk Western.*—1980 equipment program calls for acquisition of five new diesel-electric units, 15 cabooses, and 552 freight cars—246 boxcars, 243 bilevel and trilevel rack cars, 40 piggyback flatcars, and 23 standard flatcars.

• *Green Bay & Western.*—Is taking delivery of five locomotives—a 2,000-hp Alco C-420 and four 2,400-hp Alco C-424's—that were remanufactured by the General Electric Eastern Apparatus Service Division at Hornel, N.Y. The locomotives are the first to be delivered under the new locomotive rebuilding program of Itel Rail, of which GB&W is a subsidiary.

• *Kansas City Southern.*—Capital budget for 1980 totals $41.6 million, up from $41.1 million in 1979. KCS has budgeted $29.1 million for six new locomotives and 600 freight cars. For fixed plant, $12.5 million is earmarked; largest single project will be construction of a new diesel facility at Shreveport, La. Maintenance expenditures will also be up in 1980, from $48.1 million to $56.8 million for equipment, and from $40.4 million to $46.3 million for way and structures.